WELCOME

TO THE

GUIDE FOR AVIATION MEDICAL EXAMINERS

This printable version of the on-line guide provides instant access to information regarding regulations, medical history, examination procedures, disposition, and protocols. Information is available in the traditional chapter format or by subject matter.

This version of the Guide retains a Chapter format.

Chapter 1 continues to provide administrative information.

Chapters 2, 3, and 4 continues to provide information regarding the conduct of the examination, certification decision-making criteria, and completion instructions for the FAA Form 8500-8,

Application for Airman Medical Certificate or Airman Medical and Student Pilot Certificate.

A Table of Contents, AME Assisted Special Issuances, Disease Protocols, Index, Glossary and Appendices A-E are also provided for your review.

To navigate through the Guide by Item number or subject matter, simply click on the "BOOKMARK" tab in the left column to search specific certification decision-making criteria.

To expand any "BOOKMARK" files, click on the corresponding + button located in front of the text. Likewise, click on the + button again to collapse any of the expanded files.

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CHAPTER 1

GENERAL INFORMATION

This chapter provides input to assist an Aviation Medical Examiners (AME), otherwise known as an Examiner, in performing his or her duties in an efficient and effective manner. It also describes Examiner responsibilities as the Federal Aviation Administration's (FAA) representative in medical certification matters and as the link between airmen and the FAA.

1. Legal Responsibilities Of Designated Aviation Medical Examiners

Title 49, United States Code (U.S.C.) (Transportation), sections 109(9), 40113(a), 4701-44703, and 44709 (1994) formerly codified in the Federal Aviation Act of 1958, as amended, authorizes the FAA Administrator to delegate to qualified private persons; i.e. designated Examiners, matters related to the examination, testing, and inspection necessary to issue a certificate under the U.S.C. and to issue the certificate. Designated Examiners are delegated the Administrator's authority to examine applicants for airman medical certificates and to issue or deny issuance of certificates.

Approximately 450,000 applications for airman medical certification are received and processed each year. The vast majority of medical examinations conducted in connection with these applications are performed by physicians in private practice who have been designated to represent the FAA for this purpose. An Examiner is a designated representative of the FAA Administrator with important duties and responsibilities. It is essential that Examiners recognize the responsibility associated with their appointment.

The consequences of a negligent or wrongful certification, which would permit an unqualified person to take the controls of an aircraft, can be serious for the public, for the Government, and for the Examiner. If the examination is cursory and the Examiner fails to find a disqualifying defect that should have been discovered in the course of a thorough and careful examination, a safety hazard may be created and the Examiner may bear the responsibility for the results of such action.

Of equal concern is the situation in which an Examiner deliberately fails to report a disqualifying condition either observed in the course of the examination or otherwise known to exist. In this situation, both the applicant and the Examiner in completing the application and medical report form, may be found to have committed a violation of Federal criminal law which provides that:

"Whoever in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up by any trick, scheme, or device a material fact, or who makes any false, fictitious or fraudulent

statements or representations, or entry, may be fined up to \$250,000 or imprisoned not more than 5 years, or both" (Title 18 U.S. Code. Secs. 1001; 3571).

Cases of falsification may be subject to criminal prosecution by the Department of Justice. This is true whether the false statement is made by the applicant, the Examiner, or both. In view of the pressures sometimes placed on Examiners by their regular patients to ignore a disqualifying physical defect that the physician knows to exist, it is important that all Examiners be aware of possible consequences of such conduct.

In addition, when an airman has been issued a medical certificate that should not have been issued, it is frequently necessary for the FAA to begin a legal revocation or suspension action to recover the certificate. This procedure is time consuming and costly. Furthermore, until the legal process is completed, the airman may continue to exercise the privileges of the certificate, thereby compromising aviation safety.

2. Authority of Aviation Medical Examiners

The Examiner is delegated authority to:

- Examine applicants for, and holders of, airman medical certificates to determine whether or not they meet the medical standards for the issuance of an airman medical certificate.
- Issue or deny airman medical certificates to applicants or holders of such certificates based upon whether or not they meet the applicable medical standards. The medical standards are found in Title 14 of the Code of Federal Regulations, part 67. (See Appendix A).

A medical certificate issued by an Examiner is considered to be affirmed as issued unless, within 60 days after date of issuance (date of examination), it is reversed by the Federal Air Surgeon, a RFS, or the Manager, AMCD. However, if the FAA requests additional information from the applicant within 60 days after the issuance, the above-named officials have 60 days after receipt of the additional information to reverse the issuance.

3. Equipment Requirements

For the conduct of the medical examination, Examiner's shall have adequate facilities for performing the required examinations and posess or agree to obtain the following equipment prior to conducting any FAA examinations. History or current findings may indicate a need for special evaluations.

1. <u>Standard Snellen Test</u>. Types for visual acuity (both near and distant) and appropriate eye lane. FAA Form 8500-1, Near Vision Acuity Test Card may be used for near and intermediate vision testing. Metal, opaque plastic or cardboard occluder.

- 2. <u>Eye Muscle Test-Light</u>. May be a spot of light 0.5cm in diameter, a regular muscletest light, or an ophthalmoscope.
- 3. Maddox Rod. May be hand type.
- 4. Horizontal Prism Bar. Risley, Hughes, or hand prism are acceptable alternatives.
- 5. <u>Color Vision Test Apparatus</u>. Pseudoisochromatic plates, (American Optical Company (AOC), I965 edition; AOC-HRR, 2nd edition); Dvorine, 2nd edition; Ishihara, Concise 14 -, 24 -; or 38-plate editions; or Richmond (I983 edition, 15-plates). Acceptable substitutes are: Farnsworth Lantern; Keystone Orthoscope; Keystone Telebinocular; LKC Technologies, Inc., Apt-5 Color Vision Tester; OPTEC 2000 Vision Tester (Models 2000PAME, and 2000OPI); Titmus Vision Tester; Titmus II Vision Tester (Model Nos. TII and TIIS); and Titmus 2 Vision Tester (Models T2A and T2S).
- 6. <u>A Wall Target</u> consisting of a 50-inch square surface with a matte finish (may be black felt or dull finish paper) and a 2-mm white test object (may be a pin) in a suitable handle of the same color as the background.
- 7. Other vision test equipment that is acceptable as a replacement for 1 through 4 above includes the American Optical Company Site-Screener, Bausch and Lomb Orthorator, Keystone Orthoscope or Telebinocular, Titmus Vision Tester, or Stereo Optical Co. OPTEC 2000 VISION TESTER.
- 8. <u>Standard physician diagnostic instruments and aids</u> including those necessary to perform urinalysis.
- 9. <u>Electrocardiographic equipment</u>. Senior Examiners must have access to digital electrocardiographic equipment with electronic transmission capability.
- 10. <u>Audiometric equipment</u>. All Examiners must have access to audiometric equipment or a capability of referring applicants to other medical facilities for audiometric testing.

4. Medical Certification Decision Making and AME Assisted Special Issuance (AASI)

A. After reviewing the medical history and completing the examination, Examiners must:

- Issue a medical certificate,
- Deny the application, or
- Defer the action to the Manager, AMCD, AAM-300, or the appropriate RFS

Examiners **may issue** a medical certificate *only* if the applicant meets all medical standards, including those pertaining to medical history unless otherwise authorized by the FAA.

Examiners **may not issue** a medical certificate if the applicant fails to meet specified minimum standards or demonstrates any of the findings or diagnoses described in this Guide as "disqualifying" unless the condition is unchanged or improved and the applicant presents written documentation that the FAA has evaluated the condition, found the applicant eligible for certification, and authorized Examiners to issue certificates.

The Examiner must be aware that an established medical history or clinical diagnosis of any of the following is disqualifying:

- Angina pectoris;
- Bipolar disorder;
- · Cardiac valve replacement;
- Coronary heart disease that has required treatment or, if untreated, that has been symptomatic or clinically significant;
- Diabetes mellitus requiring insulin or other hypoglycemic medication;
- Disturbance of consciousness without satisfactory medical explanation of the cause:
- Epilepsy;
- Heart replacement;
- Myocardial infarction;

- Permanent cardiac pacemaker;
- Personality disorder that is severe enough to have repeatedly manifested itself by overt acts;
- Psychosis;
- Substance abuse;
- Substance dependence;
- Transient loss of control of nervous system function(s) without satisfactory medical explanation of cause.

An airman who is medically disqualified for any reason may be considered by the FAA for an Authorization for Special Issuance of a Medical Certificate (Authorization). For medical defects, which are static or nonprogressive in nature, a Statement of Demonstrated Ability (SODA), may be granted in lieu of an Authorization.

The Examiner **always may defer** the application to the FAA for action. In the interests of the applicant and of a responsive certification system, however, deferral is appropriate only if the standards are not met; if there is an unresolved question about the history, the findings, the standards, or agency policy; if the examination is incomplete; if further evaluation is necessary; or if directed by the FAA.

The Examiner **may deny** certification *only* when the applicant clearly does not meet the standards.

B. AME Assisted Special Issuance (AASI) for Airman Medical Certification

The format of the Guide establishes tables in Chapter 3 for Items 25 - 48 (FAA Form 8500-8). The PROTOCOL section of the aeromedical decisions tables identifies the information required by the Agency to determine the eligibility of the applicant to be medically certificated. References to specific medical tests or procedures should be coordinated through the airman's treating physician(s). At times, an airman may not have an established treating physician and the Examiner may elect to fulfill this role. You must consider your responsibilities in your capacity as an Examiner as well as the potential conflicts that may arise when performing in this dual capacity.

If this is a first-time issuance for a disqualifying disease/condition and the airman has all of the requisite medical information necessary for a determination, the Examiner must defer and submit all of the documentation to the AMCD or contact the RFS.

The Guide refers to a number of selected medical conditions that are initially disqualifying and must be deferred to the AMCD or RFS. Following the granting of an Authorization for Special Issuance of a Medical Certificate (Authorization) by the AMCD or RFS's office, the AASI process allows the Examiner to reissue airman medical certificates to **ALL CLASSES** provided the airman meets disease/condition certification criteria.

5. Privacy of Medical Information

A. Within the FAA, access to an individual's medical information is strictly on a "need-to-know" basis. The safeguards of the Privacy Act apply to the application for airman medical certification and to other medical files in the FAA's possession. The FAA does not release medical information without an order from a court of competent jurisdiction, written permission from the individual to whom it applies, or, with the individual's knowledge, during litigation of matters related to certification. The FAA does, however, on request, disclose the fact that an individual holds an airman medical certificate and its class, and it may provide medical information regarding a pilot involved in an accident to the National Transportation Safety Board (NTSB) (or to a physician of the appropriate medical discipline who is retained by the NTSB for use in aircraft accident investigation.)

The Examiner, as a representative of the FAA, should treat the applicant's medical certification information in accordance with the requirements of the Privacy Act. Therefore, information should not be released without the written consent of the applicant or an order from a court of competent jurisdiction. In order to ensure that release of information is proper, whenever a court order or subpoena is received by the Examiner, the appropriate RFS (see Appendix C), or the AMCD, AAM-300 (see address below), should be contacted. Similarly, unless the applicant's written consent for release is of a routine nature; e.g., accompanying a standard insurance company request, advice should be sought from the FAA before releasing any information. In all cases, copies of all released information should be retained.

B. Health Insurance Portability and Accountability Act of 1996 (HIPAA) and Examiner's activities for the FAA. This Act provides specific patient protections and depending upon an Examiner's activation and practice patterns, you may have to comply with additional requirements.

Please see the Federal Air Surgeon's Medical Bulletin • Spring 2003 for information regarding the Act. You may access this Bulletin using the following URL:

http://www.cami.jccbi.gov/AAM-400a/FASMB/FAS200301/hipaa.htm

6. Release of Information

Except in compliance with an order of a court of competent jurisdiction, or upon an applicant's written request, Examiners will not divulge or release copies of any reports prepared in connection with the examination to anyone other than the applicant or the FAA. A copy of the examination may be released to the applicant upon request. Upon receipt of a court subpoena or order, the Examiner shall notify the appropriate RFS. Other requests for information will be referred to:

MANAGER
AEROSPACE MEDICAL CERTIFICATION DIVISION, AAM-331
CIVIL AEROMEDICAL INSTITUTE
FEDERAL AVIATION ADMINISTRATION
POST OFFICE BOX 26200
OKLAHOMA CITY, OK 73125-0080

7. No "Alternate" Examiners Designated

The Examiner is to conduct all medical examinations at their designated address only. An Examiner *is not permitted* to conduct examinations at a temporary address and is not permitted to name an alternate Examiner. During an Examiner's absence from the permanent office, applicants for airman medical certification shall be referred to another Examiner in the area.

8. Who May Be Certified

a. Age Requirements

There is no age restriction or aviation experience requirements for medical certification. Any applicant who qualifies medically may be issued a Medical Certificate, FAA Form 8500-9 (white), regardless of age. Examiners also have been delegated authority to issue the combined Medical Certificate and Student Pilot Certificate, FAA Form 8420-2 (yellow), which is age restricted because it is an airman medical and student pilot certificate (student license and medical certificate). For issuance of the combined certificate, the applicant must have reached his or her 16th birthday.

Minimum age requirements for the various airman certificates (i.e., pilot license certificates) are defined in 14 CFR part 61, Certification: Pilots and Flight Instructors, and Ground Inspectors as follows:

- (1) Airline transport pilot (ATP) certificate: 23 years
- (2) Commercial pilot certificate: 18 years
- (3) Private pilot certificate: powered aircraft 17 years; gliders and balloons
- 16 years
- (4) Student pilot certificate: powered aircraft 16 years; gliders and balloons
- 14 years

b. Language Requirements

An applicant for an Airman Medical and Student Pilot Certificate must be able to read, speak, write, and understand the English language.

If the Examiner believes that an applicant applying for a Medical Certificate and Student Pilot Certificate, FAA Form 8420-2 (yellow), cannot read, speak, write, and understand the English language, the applicant shall be referred to the nearest Flight Standards District Office (FSDO) for a determination of eligibility for the Student Pilot Certificate. (See Appendix E for FSDO addresses).

Under these circumstances, the Examiner may issue only a Medical Certificate, FAA Form 8500-9 (white), and the applicant must present that certificate to the FSDO when applying for a Student Pilot Certificate.

9. Classes of Medical Certificates

An applicant may apply and be granted any class of airman medical certificate as long as the applicant meets the required medical standards for that class of medical certificate. However, an applicant must have the appropriate class of medical certificate for the flying duties the airman intends to exercise. For example, an applicant who exercises the privileges of an airline transport pilot (ATP) certificate must hold a first-class medical certificate. That same pilot when holding only a third-class medical certificate may only exercise flying activities of a private pilot certificate. Finally, an applicant need not hold an ATP airman certificate to be eligible for a first-class medical certificate.

Listed below are the three classes of airman medical certificates, identifying the categories of airmen (i.e., pilot) certificates applicable to each class.

First-Class - Airline Transport Pilot.

Second-Class - Commercial Pilot; Flight Engineer; Flight Navigator; or Air Traffic Control Tower Operator. (Note: This category of air traffic controller does not include FAA employee air traffic control specialists).

Third-Class - Private Pilot, Recreational Pilot, or Student Pilot.

10. Operations Not Requiring a Medical Certificate

Glider and Free Balloon Pilots are not required to hold a medical certificate of any class. To be issued Glider or Free Balloon Airman Certificates, applicants must certify that they do not know, or have reason to know, of any medical condition that would make them unable to operate a glider or free balloon in a safe manner. This certification is made at the local FAA Flight Standards District Office.

"Sport" pilots are required to hold either a valid airman medical certificate or a current and valid U.S. driver's license. When using a current and valid U.S. driver's license to qualify, sport pilots must comply with each restriction and limitation on their U.S. driver's license and any judicial or administrative order applying to the operation of a motor vehicle.

To exercise sport pilot privileges using a current and valid U.S. driver's license as evidence of qualification sport pilots must:

- not have been denied the issuance of at least a third-class airman medical certificate (if they have applied for an airman medical certificate)
- not have had their most recent airman medical certificate revoked or suspended (if they have held an airman medical certificate); and
- not have had an Authorization withdrawn (if they have ever been granted an Authorization)

Sport pilots may not use a current and valid U.S. driver's license in lieu of a valid airman medical certificate if they know or have reason to know of any medical condition that would make them unable to operate a light-sport aircraft in a safe manner.

Sport pilot medical provisions are found under 14 CFR §§ 61.3, 61.23, 61.53, and 61.303).

For more information about the sport pilot final rule, see:

http://dmses.dot.gov/docimages/pdf89/289219_web.pdf

http://www.faa.gov/avr/afs/sportpilot/fag.doc

11. Validity of Medical Certificates

A. First-Class Medical Certificate: A first-class medical certificate is valid for the remainder of the month of issue; plus

6-calendar months for activities requiring a first-class medical certificate, or plus

12-calendar months for activities requiring a second-class medical certificate, or plus

24-calendar months for activities requiring a third-class medical certificate, or plus

36-calendar months for activities requiring a third-class medical certificate if <u>the airman has not reached his or her 40th birthday on or before the date of examination.*</u>

B. Second-Class Medical Certificate: A second-class medical certificate is valid for the remainder of the month of issue; plus

12-calendar months for activities requiring a second-class medical certificate, or plus

24-calendar months for activities requiring a third-class medical certificate, or plus

36-calendar months for activities requiring a third-class medical certificate if the airman has not reached his or her 40th birthday on or before the date of examination.*

C. Third-Class Medical Certificate: A third-class medical *c*ertificate is valid for the remainder of the month of issue; plus

24-calendar months for activities requiring a third-class medical certificate, or plus

36-calendar months for activities requiring a third-class medical certificate if <u>the airman has not reached his or her 40th birthday on or before the date of examination.*</u>

Each medical certificate must bear the same date as the date of medical examination regardless of the date the certificate is actually issued.

*NOTE: Flight Outside the Airspace of the United States of America (U.S.A.)--a pilot who is issued a medical certificate under the age of 40 may not exercise the privileges of a private pilot certificate outside the U.S.A. after the 24 months of validity of that medical certificate except as permitted by a foreign country(s) where the flight occurs. The maximum validity of a private pilot medical certificate is 24 months under the standards of the International Civil Aviation Organization.

12. Title 14 CFR § 61.53, Prohibition on Operations During Medical Deficiency

NOTE: 14 CFR § 61.53 was revised on July 27, 2004 by adding subparagraph (c)

- (a) Operations that require a medical certificate. Except as provided in paragraph (b) of this section, a person who holds a current medical certificate issued under part 67 of this chapter shall not act as pilot in command, or in any other capacity as a required pilot flight crewmember, while that person:
 - (1) Knows or has reason to know of any medical condition that would make the person unable to meet the requirements for the medical certificate necessary for the pilot operation; or
 - (2) Is taking medication or receiving other treatment for a medical condition that results in the person being unable to meet the requirements for the medical certificate necessary for the pilot operation
- (b) Operations that do not require a medical certificate. For operations provided for in § 61.23(b) of this part, a person shall not act as pilot in command, or in any other capacity as a required pilot flight crewmember, while that person knows or has reason to know of any medical condition that would make the person unable to operate the aircraft in a safe manner.
- (c) Operations requiring a medical certificate or a U.S. driver's license. For operations provided for in Sec. 61.23(c), a person must meet the provisions of--
 - (1) Paragraph (a) of this section if that person holds a valid medical certificate issued under part 67 of this chapter and does not hold a current and valid U.S. driver's license
 - (2) Paragraph (b) of this section if that person holds a current and valid U.S. driver's license

13. Reexamination of an Airman

A medical certificate holder may be required to undergo a reexamination at any time if, in the opinion of the Federal Air Surgeon or authorized representative within the FAA, there is a reasonable basis to question the airman's ability to meet the medical standards. An Examiner may **NOT** order such reexamination.

14. Examination Fees

The FAA does not establish fees to be charged by Examiners for the medical examination of persons applying for airman medical certification. It is recommended that the fee be the usual and customary fee established by other physicians in the same general locality for similar services.

15. Replacement of Medical Certificates

Medical certificates that are lost or accidentally destroyed may be replaced upon proper application provided such certificates have not expired. The request should be sent to:

FOIA DESK
AEROSPACE MEDICAL CERTIFICATION DIVISION, AAM-331
FEDERAL AVIATION ADMINISTRATION
CIVIL AEROSPACE MEDICAL INSTITUTE
POST OFFICE BOX 26200
OKLAHOMA CITY, OK 73125-0080

The airman's request for replacement must be accompanied by a remittance of two dollars (\$2) (check or money order) made payable to the FAA. This request must include:

- The airman's full name and date of birth;
- The class of certificate;
- The place and date of examination;
- The name of the Examiner; and
- The circumstances of the loss or destruction of the original certificate.

The replacement certificate will be prepared in the same manner as the missing certificate and will bear the same date of examination regardless of when it is issued.

In an emergency, contact your RFS or the Manager, AMCD, AAM-300, at above address or by facsimile at 405-954-4300 for certification verification only.

16. Disposition of Applications and Medical Examinations

All **completed** applications and medical examinations, unless otherwise directed by the FAA, **must** be transmitted electronically within 14 days after completion to the AMCD.

In addition, the FAA/Original Copy must be mailed to:

MANAGER
AEROSPACE MEDICALCERTIFICATION DIVISION, AAM-300
CIVIL AEROSPACE MEDICAL INSTITUTE
FEDERAL AVIATION ADMINISTRATION
POST OFFICE BOX 26080
OKLAHOMA CITY, OK 73125-0080

These may be batch mailed at monthly intervals. All **incomplete** applications and medical examinations **must** be mailed immediately to the above address.

The AME Work Copy **must** be retained by the AME as their file copy for at least 3 years unless exceeded by state law requirements where the AME is licensed and performed the examination.

The Applicant's Copy of the FAA Form 8500-8 (last page) must be given to the applicant along with the information for Applicant and the instruction sheet.

Examiners not required to use the AMCS; e.g., International AME's, **must** forward the typed, completed FAA/Original Copy to the above address.

17. Protection and Destruction of Forms

Examiners are cautioned to provide adequate security for blank medical application and certificate forms to ensure that they do not become available for illegal use. When the FAA issues new or revised medical forms and certificates, the FAA will advise Examiners of the disposition of the old forms and certificates. The serial numbers of FAA Form 8500-8 assigned to each Examiner are recorded at the Civil Aerospace Medical Institute in Oklahoma City. If asked, the Examiner should be prepared to account for the forms. The Examiners are responsible making provisions to return of all unused FAA forms at such time they leave (resign, retire, terminated, or death) the AME Program. Forms should not be shared with other Examiners.

18. Questions or Requests for Assistance

When an Examiner has a question or needs assistance in carrying out responsibilities, the Examiner should contact one of the following individuals:

- a. Regional Flight Surgeon (RFS) (Names, addresses, and telephone numbers of RFS's are provided in Appendix C).
 - Questions pertaining to problem medical certification cases in which the RFS has initiated action.

- Telephone interpretation of medical standards or policies involving an individual airman whom the Examiner is examining.
- Matters regarding designation and redesignation of Examiners and the Aviation Medical Examiner Program.
- Attendance at Aviation Medical Examiner Seminars.

b. Manager, AMCD, AAM-300

- Inquiries concerning guidance on problem medical certification cases.
- Information concerning the overall airman medical certification program.
- Matters involving FAA medical certification of military personnel.
- Information concerning medical certification of applicants in foreign countries.

These inquiries should be made to:

MANAGER
AEROSPACE MEDICAL CERTIFICATION DIVISION, AAM-300
CIVIL AEROSPACE MEDICAL INSTITUTE
FEDERAL AVIATION ADMINISTRATION
POST OFFICE BOX 26080
OKLAHOMA CITY, OK 73125

c. Manager, Aeromedical Education Division, AAM-400

- Matters regarding designation and redesignation of International Examiners, military facilities, and military Examiners.
- Requests for medical forms and stationery.
- Reguests for airman medical educational material.

These inquiries should be made to:

MANAGER
Ankylosis, AAM-400
CIVIL AEROSPACE MEDICAL INSTITUTE
FEDERAL AVIATION ADMINISTRATION
POST OFFICE BOX 25082
OKLAHOMA CITY, OK 73125-0082

19. Airman Appeals

a. Request for Reconsideration

An Examiner's denial of a medical certificate is not a final FAA denial. An applicant may ask for reconsideration of an Examiner's denial by submitting a request in writing to:

FEDERAL AIR SURGEON
ATTN: MANAGER,
AEROSPACE MEDICAL CERTIFICATION DIVISION, AAM-331
CIVIL AEROSPACE MEDICAL INSTITUTE
FEDERAL AVIATION ADMINISTRATION
POST OFFICE BOX 26200
OKLAHOMA CITY, OK 73125-0080

The AMCD will provide initial reconsideration. Some cases may be referred to the appropriate RFS for action. If the AMCD, or a RFS finds that the applicant is not qualified, the applicant is denied and advised of further reconsideration and appeal procedures. These may include reconsideration by the Federal Air Surgeon and/or petition for NTSB review.

b. Authorization for Special Issuance of a Medical Certificate (Authorization)

At the discretion of the Federal Air Surgeon, an Authorization for Special Issuance of a Medical Certificate (Authorization), valid for a specified period, may be granted to a person who does not meet the established medical standards if the person shows to the satisfaction of the Federal Air Surgeon that the duties authorized by the class of medical certificate applied for can be performed without endangering public safety during the period in which the Authorization would be in force. The Federal Air Surgeon may authorize a special medical flight test, practical test, or medical evaluation for this purpose. A medical certificate of the appropriate class may be issued to a person who fails to meet one or more of the established medical standards if that person possesses a valid agency issued Authorization and is otherwise eligible. An airman medical certificate issued in accordance with the special issuance section of part 67 (14 CFR § 67.401), shall expire no later than the end of the validity period or upon the withdrawal of the Authorization upon which it is based. An airman must again show to the satisfaction of the Federal Air Surgeon that the duties authorized by the class of medical certificate applied for can be performed without endangering public safety in order to obtain a new medical certificate and/or a Re-Authorization.

LAST UPDATE: November 1, 2004

In granting an Authorization, the Federal Air Surgeon may consider the person's operational experience and any medical facts that may affect the ability of the person to perform airman duties including:

- The factors leading to and surrounding the episode
- The combined effect on the person of failing to meet one or more than one requirement of part 67; and
- The prognosis derived from professional consideration of all available information regarding the person.

In granting an Authorization, the Federal Air Surgeon specifies the class of medical certificate authorized to be issued and may do any or all of the following:

- Limit the duration of an Authorization;
- Condition the granting of a new Authorization on the results of subsequent medical tests, examinations, or evaluations;
- State on the Authorization, and any medical certificate based upon it, any operational limitation needed for safety; or
- Condition the continued effect of an Authorization, and any second- or third-class medical certificate based upon it, on compliance with a statement of functional limitations issued to the person in coordination with the Director of Flight Standards or the Director's designee.
- In determining whether an Authorization should be granted to an applicant for a third-class medical certificate, the Federal Air Surgeon considers the freedom of an airman, exercising the privileges of a private pilot certificate, to accept reasonable risks to his or her person and property that are not acceptable in the exercise of commercial or airline transport pilot privileges, and, at the same time, considers the need to protect the safety of persons and property in other aircraft and on the ground.

An Authorization granted to a person who does not meet the applicable medical standards of part 67 may be withdrawn, at the discretion of the Federal Air Surgeon, at any time if:

There is adverse change in the holder's medical condition;

- The holder fails to comply with a statement of functional limitations or operational limitations issued as a condition of certification under the special issuance section of part 67 (14 CFR 67.401);
- Public safety would be endangered by the holder's exercise of airman privileges;
- The holder fails to provide medical information reasonably needed by the Federal Air Surgeon for certification under the special issuance section of part 67 (14 CFR 67.401); or
- The holder makes or causes to be made a statement or entry that is the basis for withdrawal of an Authorization under the falsification section of part 67 (14 CFR 67.403).

A person who has been granted an Authorization under the special issuance section of part 67 (14 CFR 67.401), based on a special medical flight or practical test, need not take the test again during later medical examinations unless the Federal Air Surgeon determines or has reason to believe that the physical deficiency has or may have degraded to a degree to require another special medical flight test or practical test.

The authority of the Federal Air Surgeon under the special issuance section of part 67 (14 CFR 67.401) is also exercised by the Manager, AMCD, and each RFS.

If an Authorization is withdrawn at any time, the following procedures apply:

- The holder of the Authorization will be served a letter of withdrawal, stating the reason for the action;
- By not later than 60 days after the service of the letter of withdrawal, the holder of the Authorization may request, in writing, that the Federal Air Surgeon provide for review of the decision to withdraw. The request for review may be accompanied by supporting medical evidence;
- Within 60 days of receipt of a request for review, a written final decision either affirming or reversing the decision to withdraw will be issued; and
- A medical certificate rendered invalid pursuant to a withdrawal, in accordance with the special issuance section of part 67 (14 CFR 67.401) shall be surrendered to the Administrator upon request.

c. Statement of Demonstrated Ability (SODA)

At the discretion of the Federal Air Surgeon, a Statement of Demonstrated Ability (SODA) may be granted, instead of an Authorization, to a person whose disqualifying condition is static or nonprogressive and who has been found capable of performing airman duties without endangering public safety. A SODA does not expire and

authorizes a designated Examiner to issue a medical certificate of a specified class if the Examiner finds that the condition described on the SODA has not adversely changed.

In granting a SODA, the Federal Air Surgeon may consider the person's operational experience and any medical facts that may affect the ability of the person to perform airman duties including:

- The combined effect on the person of failure to meet more than one requirement of part 67; and
- The prognosis derived from professional consideration of all available information regarding the person.

In granting a SODA under the special issuance section of part 67 (14 CFR 67.401), the Federal Air Surgeon specifies the class of medical certificate authorized to be issued and may do any of the following:

- State on the SODA, and on any medical certificate based upon it, any operational limitation needed for safety; or
- Condition the continued effect of a SODA, and any second- or third-class medical certificate based upon it, on compliance with a statement of functional limitations issued to the person in coordination with the Director of Flight Standards or the Director's designee.
- In determining whether a SODA should be granted to an applicant for a third-class medical certificate, the Federal Air Surgeon considers the freedom of an airman, exercising the privileges of a private pilot certificate, to accept reasonable risks to his or her person and property that are not acceptable in the exercise of commercial or airline transport pilot privileges, and, at the same time, considers the need to protect the safety of persons and property in other aircraft and on the ground.

A SODA granted to a person who does not meet the applicable standards of part 67 may be withdrawn, at the discretion of the Federal Air Surgeon, at any time if:

- There is adverse change in the holder's medical condition;
- The holder fails to comply with a statement of functional limitations or operational limitations issued under the special issuance section of part 67 (14 CFR 67.401).
- Public safety would be endangered by the holder's exercise of airman privileges;
- The holder fails to provide medical information reasonably needed by the Federal Air Surgeon for certification under the special issuance section of part 67 (14 CFR 67.401).

- The holder makes or causes to be made a statement or entry that is the basis for withdrawal of a SODA under the falsification section of part 67 (14 CFR 67.403); or
- A person who has been granted a SODA under the special issuance section of part 67 (14 CFR 67.401), based on a special medical flight or practical test need not take the test again during later medical examinations unless the Federal Air Surgeon determines or has reason to believe that the physical deficiency has or may have degraded to a degree to require another special medical flight test or practical test.

The authority of the Federal Air Surgeon under the special issuance section of part 67 (14 CFR 67.401) is also exercised by the Manager, AMCD, and each RFS.

If a SODA is withdrawn at any time, the following procedures apply:

- The holder of the SODA will be served a letter of withdrawal stating the reason for the action;
- By not later than 60 days after the service of the letter of withdrawal, the holder of the SODA may request, in writing, that the Federal Air Surgeon provide for review of the decision to withdraw. The request for review may be accompanied by supporting medical evidence;
- Within 60 days of receipt of a request for review, a written final decision either affirming or reversing the decision to withdraw will be issued; and
- A medical certificate rendered invalid pursuant to a withdrawal, in accordance with the special issuance section of part 67 (14 CFR 67.401(a)) shall be surrendered to the Administrator upon request.

d. National Transportation Safety Board (NTSB)

Within 60 days after a final FAA denial of an unrestricted airman medical certificate, an airman may petition the NTSB for a review of that denial. The NTSB does not have jurisdiction to review the denial of a SODA or special issuance airman medical certificate. A petition for NTSB review must be submitted in writing to:

NATIONAL TRANSPORTATION SAFETY BOARD 490 L'ENFANT PLAZA, EAST SW WASHINGTON, DC 20594-0001

The NTSB is an independent agency of the Federal Government that has the authority to review on appeal the suspension, amendment, modification, revocation, or denial of any certificate or license issued by the FAA Administrator.

An Administrative Law Judge for the NTSB may hold a formal hearing at which the FAA will present documentary evidence and testimony by medical specialists supporting the denial decision. The petitioner will also be given an opportunity to present evidence and testimony at the hearing. The Administrative Law Judge's decision is subject to review by the full NTSB.

CHAPTER 2

APPLICATION FOR MEDICAL CERTIFICATION

General Information

This section contains guidance for items on the Medical History and General Information page of FAA Form 8500-8, Application for Airman Medical Certificate or Airman Medical and Student Pilot Certificate.

AME Guidance for Positive Identification of Airmen and Application Distribution Procedures

All applicants must be asked to show proof of age and identity. On occasion, individuals have attempted to be examined under a false name. If the applicant is unknown to the Examiner, the Examiner should request evidence of positive identification. A Government issued photo identification (e.g., driver's license, identification card issued by a driver's license authority, military identification, or passport) provides age and identity and is preferred. Applicants may use other government-issued identification for age (e.g., certified copy of a birth certificate); however, the Examiner must request separate photo identification for identity (such as a work badge). Verify that the address provided is the same as that given under Item 5. Record the type of identification(s) provided and identifying number(s) under Item 61. Make a copy of the identification and keep it on file for 3 years with the AME work copy.

An applicant who does not have government-issued photo identification may use non-photo government-issued identification (e.g. pilot certificate, birth certificate, voter registration card) in conjunction with a photo identification (e.g. work identification card, student identification card).

If an airman fails to provide identification, the Examiner must report this immediately to the AMCD, or the appropriate RFS for guidance.

II. Distribution of the FAA Form 8500-8 to the Applicant.

Both the yellow and white certificates and their instructions **must** be removed before the application is given to the applicant. The Information for Applicant and Instructions for Completion of the Application pages **must** also be given to the applicant.

On the general information and medical history page of the application, the applicant is to fill in Items 1-20 in his or her handwriting using a ballpoint pen, exerting sufficient pressure for all copies, to make legible imprints upon the Examiner's and airman's copies of the form.

III. After the Applicant Completes the Medical History Page of the FAA Form 8500-8:

The Examiner must ensure completeness and review all items 1 through 20. A medical certificate must never be issued to an applicant who refuses to answer Item 13, page 26; Items 16 and 17, page 27; Item 18, page 29; or Item 19, page 34; or to an applicant who refuses to sign the form (Item 20, front side of the examination form). The date for Item 16 may be estimated if the applicant does not recall the actual date of the last examination. However, for the sake of electronic transmission, it must be placed in the mm/dd/yyyy format. (See Item 16, page 27).

Verify that the name on the applicant's identification media matches the name on the 8500-8. If it does not, question the applicant for an explanation. If the explanation is not reasonable (legal name change, subsequent marriage, etc.), do not continue the medical examination or issue a medical certificate. Contact your RFS for guidance.

The applicant's Social Security Number (SSN) is not mandatory. Failure to provide is not grounds for refusal to issue a medical certificate. (See Item 4, page 4). All other items on the form must be completed.

Applicants must provide their home address on the 8500-8. Applicants may use a private mailing address (e.g., a P.O. Box number or a mail drop) if that is their preferred mailing address; however, under Item 18 (in the "Explanations" box) of the 8500-8, they must provide their home address.

The applicant must personally enter all data and make all corrections on the application form. The applicant should initial all corrections. The application constitutes a legal document and *must be completed in the applicant's handwriting.* If for any reason someone other than the applicant enters information in Items 1-20, the person should initial beside that item (including any check marks), and the Examiner should add a note explaining in Item 60 (see, page 151), the person's inability to enter the data.

Strict compliance with this procedure is essential in case it becomes necessary for the FAA to take legal action for falsification of the application.

ITEMS 1-2. APPLICATION FOR; CLASS OF MEDICAL CERTIFICATE APPLIED FOR

1. Application For:			iss of M icate Ap	edical plied For:		
Airman Medical Certificate	Airman Medical and Student Pilot Certificate		1 ST		2nd	3rd

The applicant indicates whether the application is for an Airman Medical Certificate (white) or an Airman Medical and Student Pilot Certificate (yellow), and the class of medical certificate desired.

The class of medical certificate sought by the applicant is needed so that the appropriate medical standards may be applied. The class of certificate issued must correspond with that for which the applicant has applied.

The applicant may ask for a medical certificate of a higher class than needed for the type of flying or duties currently performed. For example, a student pilot may ask for a first-class medical certificate to see if he or she qualifies medically before entry into an aviation career.

The Examiner applies the standards appropriate to the class sought, not to the airman's duties - either performed or anticipated. The Examiner should never issue more than one certificate based on the same examination.

ITEMS 3-10. IDENTIFICATION

3. Last Name		First Name	Middle Name
4. Social Security Number			
5. Address		Telephone Number ()	
Number/Street			
City	State/Country		Zip Code
6. Date of Birth	7. Color of Hair	8. Color of Eyes	9. Sex
MM / DD / YYYY	<u>′</u>		
Citizenship			
Type of Airman Certification	ite(s) you hold		
None	ATC Specialist	Flight Instructor	Recreational
Airline Transport	Flight Engineer	Private	Other
Commercial	Fight Navigator	Student	

The following information is required for identification of the individual who is applying for medical certification:

3. Last Name; First Name; Middle Name

The applicant's last, first, and middle name (or initial if appropriate) **must** be printed. All applicants without a middle name should enter "NMN" or "NONE". Nicknames and abbreviated names **must** not be used. **NOTE**: If the applicant's name changed for any reason, the current name is listed on the application and any former name(s) in the EXPLANATIONS box of Item 18 on the application.

4. Social Security Number (SSN)

Although applicants are asked to complete all questions on the application, FAA Form 8500-8, they are not legally required to complete Item 4. The FAA requests the SSN for identification purposes and record control. Its use as a unique identifier may eliminate a mistake in identification.

5. Address and Telephone Number

The applicant must print a permanent mailing address, including country, and the zip code (full nine digits if known). The person must also provide a current daytime area code and telephone number.

6. Date of Birth

The applicant **must** enter the numbers for the month, day, and year of birth in order (e.g., 04/29/2000 for April 29, 2000). Name, date of birth, and SSN are the basic identifiers of airmen. When an Examiner wishes to communicate with the FAA concerning an applicant, the Examiner **must** give the applicant's full name, date of birth, and SSN if at all possible. The applicant should indicate citizenship; e.g., U.S.A.

If the applicant wishes to be issued an Airman Medical and Student Pilot Certificate (FAA Form 8420-2), the Examiner should check the date of birth to ensure that the applicant is at least 16 years old. Unless the applicant is at least 16 years old, a combined Airman Medical and Student Pilot Certificate *may not be issued*, even if the applicant will become 16 before the certificate expires (except as noted below).

The FAA will **not confirm** a certificate issued by an Examiner to a person who is less than 16 years old. The applicant must be at least 16 **at the time of application** to be eligible for a student pilot certificate for flight of powered aircraft. This minimum age requirement applies only to the issuance of the yellow FAA Form 8420-2, and never to the issuance of the white medical certificate (FAA Form 8500-9).

If the applicant is not yet 16 and wishes to solo on or after his or her 16th birthday, the Examiner should issue a white FAA Form 8500-9 (if the applicant is fully qualified medically). On or after his or her 16th birthday, the applicant may obtain a student pilot certificate for the flight from a FAA Flight Standards District Office (FSDO) or designated Flight Examiner upon presentation of the FAA Form 8500-9 (white medical certificate).

An alternative procedure for this situation is for the Examiner to issue the Airman Medical and Student Pilot Certificate, FAA Form 8420-2 (yellow), with the following statement in the limitations block of the student pilot certificate:

NOT VALID UNTIL (MONTH, DAY, AND YEAR OF 16TH BIRTHDAY)

This procedure should not be used if the applicant's 16th birthday will occur more than 30 days from the date of application.

Although nonmedical regulations allow an airman to solo a glider or balloon at age 14, a medical certificate is not required for glider or balloon operations. These airmen are required to certify to the FAA that they have no known physical defects that make them unable to pilot a glider or balloon. This certification is made at the FAA FSDO's.

There is a maximum age requirement for certain air carrier pilots. Because this is not a medical requirement but an operational one, the Examiner may issue medical certificates without regard to age to any applicant who meets the medical standards.

7. Color of Hair

Color of hair should be entered as "brown," "black," "blonde," "gray," or "red." Lack of hair should be entered as "bald." No abbreviations or other colors should be used. This information is for identification only.

8. Color of Eyes

Color of eyes should be entered as "brown," "black," "blue," "hazel," "gray," or "green." No abbreviations or other colors should be used. This information is for identification only.

9. Sex

The applicant should enter either male or female.

10. Type of Airman Certificate(s) You Hold

Applicant checks appropriate block(s).

ITEMS 11-12. OCCUPATION; EMPLOYER

11. Occupation	12. Employer

Occupational data are principally used for statistical purposes. This information, along with information obtained from Items 10, 14, and 15, may be important in determining whether a SODA may be issued, if applicable.

11. Occupation

This should reflect the applicant's major employment. "Pilot" should only be reported when the applicant earns a livelihood from flying.

12. Employer

The employer's name should be entered by the applicant.

ITEM 13. HAS YOUR FAA AIRMAN MEDICAL CERTIFICATE EVER BEEN DENIED, SUSPENDED, OR REVOKED?

13. Has Your FAA Airman Certificate Ever Been Denied, Suspended, or Revoked?					
	Yes		No	If yes, give date _	
					MM/DD/YYYY

The applicant shall check "yes" or "no." If "yes" is checked, the applicant should enter the date of action and should report details in the EXPLANATIONS box of Item 18.

The Examiner may not issue a medical certificate to an applicant who has checked "yes." The only exceptions to this prohibition are:

- The applicant presents written evidence from the FAA that he or she was subsequently medically certificated and that an Examiner is authorized to issue a renewal medical certificate to the person if medically qualified; or
- The Examiner obtains oral or written authorization to issue a medical certificate from an FAA medical office.

ITEMS 14-15. TOTAL PILOT TIME

Total Pilot Time (Civilian Only)	
14. To Date	15. Past 6 months

14. Total Pilot Time to Date

The applicant should indicate the total number of *civilian* flight hours and whether those hours are logged (LOG) or estimated (EST).

15. Total Pilot Time Past 6 Months

The applicant should provide the number of *civilian* flight hours in the 6-month period immediately preceding the date of this application. The applicant should indicate whether those hours are logged (LOG) or estimated (EST).

ITEM 16. DATE OF LAST FAA MEDICAL APPLICATION

Date of Last FAA Medical Application	
MM/DD/YYY	No Prior Application

If a prior application was made, the applicant should indicate the date of the last application, even if it is only an estimate of the year. This item should be completed even if the application was made many years ago or the previous application <u>did not result in the issuance</u> of a medical certificate. If no prior application was made, the applicant should check the appropriate block in Item 16.

ITEM 17.a. DO YOU CURRENTLY USE ANY MEDICATION (PRESCRIPTION OR NONPRESCRIPTION)?

17.a. Do You Currently Use Any Medication (Prescription or Nonprescription)?						
	No		Yes	(If yes, list below medication(s) used and check appropriate box). Previously Reported		
				Yes No		
(If m	ore spa	ace is re	equired, s	a. on the instruction sheet).		

If the applicant checks yes, give name of medication(s) and indicate if the medication was listed in a previous FAA medical examination.

This includes both prescription and nonprescription medication. (Additional guidelines for the certification of airmen who use medication may be found in Chapter 4).

For example, any airman who is undergoing continuous treatment with anticoagulants, antiviral agents, anxiolytics, barbiturates, chemotherapeutic agents, experimental hypoglycemic, investigational, mood-ameliorating, motion sickness, narcotic, sedating antihistaminic, sedative, steroid drugs, or tranquilizers must be deferred certification

unless the treatment has previously been cleared by FAA medical authority. In such an instance, the applicant should provide the Examiner with a copy of any FAA correspondence that supports the clearance.

During periods in which the foregoing medications are being used for treatment of acute illnesses, the airman is under obligation to refrain from exercising the privileges of his/her airman medical certificate unless cleared by the FAA.

Further information concerning an applicant's use of medication may be found under the items pertaining to specific medical condition(s) for which the medication is used, or you may contact your RFS.

ITEM 17.b. DO YOU EVER USE NEAR VISION CONTACT LENS(ES) WHILE FLYING?

17.b. Do You Ever Use Near Vision Contact Lens(es) While	Yes	No
Flying?		

The applicant should indicate whether near vision contact lens(es) is/are used while flying. If the applicant answers "yes," the Examiner should counsel the applicant that the use of contact lens(es) (bifocal or unifocal) specifically for the correction of near vision is/are inappropriate. The Examiner must note in Item 60 that this counseling has been given.

If the applicant checks "yes" and no further comment is noted on FAA Form 8500-8 by either the applicant or the Examiner, a letter will automatically be sent to the applicant informing him or her that the use of contact lens(es) specifically to correct near vision is/are inappropriate for flying.

ITEM 18. MEDICAL HISTORY

18. Medical History - HAVE YOU EVER IN YOUR LIFE BEEN DIAGNOSED WITH, HAD, OR DO YOU PRESENTLY HAVE ANY OF THE FOLLOWING? Answer "yes" or "no" for every condition listed below. In the EXPLANATIONS box below, you may note 'PREVIOUSLY REPORTED, NO CHANGE" only if the explanation of the condition was reported on a previous application for an airman medical certificate and there has been no change in your condition. See Instructions Page									
.,			No Condition	١.,		Yes	No Condition		
Yes	No Condition	Yes	No Condition	Yes	No Condition	res	No Condition		
а. 🗌	Frequent or severe headaches	g. 🗌	Heart or vascular trouble	m	Mental disorders of any sort; depression, anxiety, etc.	r. 🗌	Military medical discharge		
b. 🗌	Dizziness or fainting spell	h. 🗌	High or low blood pressure	n	Substance dependence or failed a drug test ever; or substance abuse or use	s.	Medical rejection by military service		
				1	of illegal substance in the last 2 years				
с. 🗌	Unconsciousness for any reason	i. 🗆	Stomach, liver, or intestinal trouble			t. 🗌	Rejection for life or health insurance		
d. 🗌	Eye or vision trouble except glasses	j	Kidney stone or blood in urine	o. 🗌	Alcohol dependence or abuse	u. 🗌	Admission to hospital		
e. 🗌	Hay fever or allergy	k	Diabetes	р. 🗌	Suicide attempt	x	Other illness, disability, or surgery		
f	Asthma or lung disease	I	Neurological disorders; epilepsy, seizures, stroke, paralysis,. etc.	q	Motion sickness requiring medication				
Conviction and/or Administrative Action History - See Instructions Page									
resulted in the denial, suspension, cancellation, or revocation of driving privileges or which resulted in attendance w conviction attendance w conviction programs conviction conviction						No History of nontraffic conviction(s)(misdemeanors or felonies).			
EXPLA	For FAA Use Review Action Codes								

Each item under this heading must be checked either "yes" or "no." For all items checked "yes," a description and approximate date of every condition the applicant has ever been diagnosed with, had, or presently has, must be given in the EXPLANATIONS box. If information has been reported on a previous application for airman medical certification and there has been no change in the condition, the applicant may note "PREVIOUSLY REPORTED, NO CHANGE" in the EXPLANATIONS box, but the applicant must still check "yes" to the condition.

Of particular importance are conditions that have developed since the last FAA medical examination. If more space is needed, a plain sheet of paper bearing the applicant's full printed name, date of birth, signature, and the date should be used.

The Examiner must take the time to review the applicant's responses on FAA Form 8500-8 before starting the applicant's medical examination.

The Examiner should ensure that the applicant has checked all of the boxes in Item 18 as either "yes" or "no." The Examiner should use information obtained from this review in asking the applicant pertinent questions during the course of the examination. Certain aspects of the individual's history may need to be elaborated upon. The Examiner should provide in Item 60 an explanation of the nature of items checked "yes" in Items 18.a. through 18.x. An additional sheet may be added if necessary.

Supplementary reports from the applicant's physician(s) should be obtained and forwarded to the AMCD, when necessary, to clarify the significance of an item of history.

The responsibility for providing such supplementary reports rests with the applicant. A discussion with the Examiner's RFS may clarify and expedite the certification process at that time.

Affirmative answers alone in Item 18 do not constitute a basis for denial of a medical certificate. A decision concerning issuance or denial should be made by applying the medical standards pertinent to the conditions uncovered by the history.

Experience has shown that, when asked direct questions by a physician, applicants are likely to be candid and willing to discuss medical problems.

The Examiner should attempt to establish rapport with the applicant and to develop a complete medical history. Further, the Examiner should be familiar with the FAA certification policies and procedures in order to provide the applicant with sound advice.

- **18.a. Frequent or severe headaches.** The applicant should report frequency, duration, characteristics, severity of symptoms, neurologic manifestations, and whether they have been incapacitating, treatment and side effects, if any. (See Item 46, page 102).
- **18.b.** Dizziness or fainting spells. The applicant should describe characteristics of the episode; e.g., spinning or lightheadedness, frequency, factors leading up to and surrounding the episode, associated neurologic symptoms; e.g., headache, nausea, LOC, or paresthesias. Include diagnostic workup and treatment if any. (See Items 25-30, page 39; and Item 46, page 102).
- **18.c.** Unconsciousness for any reason. The applicant should describe the event(s) to determine the primary organ system responsible for the episode, witness statements, initial treatment, and evidence of recurrence or prior episode. Although the regulation states, "an unexplained disturbance of consciousness is disqualifying," it does not mean to imply that the applicant can be certificated if the etiology is identified, because the etiology may also be disqualifying in and of itself. (See Item 46, page 102).
- **18.d.** Eye or vision trouble except glasses. The Examiner should personally explore the applicant's history by asking questions, concerning any changes in vision, unusual visual experiences (halos, scintillations, etc.), sensitivity to light, injuries, surgery, or current use of medication. Does the applicant report inordinate difficulties with eye fatigue or strain? Is there a history of serious eye disease such as glaucoma or other disease commonly associated with secondary eye changes, such as diabetes? For glaucoma or ocular hypertension, obtain a FAA Form 8500-14, Report of Eye Evaluation for Glaucoma. For any other medical condition, obtain a FAA Form 8500-7, Report of Eye Evaluation. Under all circumstances, please advise the examining eye specialist to explain why the airman is unable to correct to Snellen visual acuity of 20/20. (Also see Items 31-34, page 46; Item 53, page 141; and Item 54, page 143).
- **18.e.** Hay fever or allergy. The applicant should report frequency and duration of symptoms, and whether they have been incapacitating by the condition. Mention

should also be made of treatment and side effects. The Examiner should inquire whether the applicant has ever experienced any "ear block", barotitis, or any other symptoms that could interfere with aviation safety? Barosinusitis is of concern and should also be ruled out. (See Item 26, page 42).

- **18.f.** Asthma or lung disease. The applicant should provide frequency and severity of asthma attacks, medications, and number of visits to the hospital and/or emergency room. For other lung conditions, a detailed description of symptoms/diagnosis, surgical intervention, and medications should be provided. (See Item 35, page 56).
- **18.g.** Heart or vascular trouble. The applicant should describe the condition to include, dates, symptoms, and treatment, and provide medical reports to assist in the certification decision-making process. These reports should include: operative reports of coronary intervention to include the original cardiac catheterization report, stress tests, worksheets, and original tracings (or a legible copy). When stress tests are provided, forward the reports, worksheets and original tracings (or a legible copy) to the FAA. Part 67 provides that, for all classes of medical certificates, an established medical history or clinical diagnosis of myocardial infarction, angina pectoris, cardiac valve replacement, permanent cardiac pacemaker implantation, heart replacement, or coronary heart disease that has required treatment or, if untreated, that has been symptomatic or clinically significant, is cause for denial. (See Item 36. page 63)
- **18.h. High or low blood pressure.** The applicant should provide history and treatment. Issuance of a medical certificate to an applicant with high blood pressure may depend on the current blood pressure levels and whether the applicant is taking anti-hypertensive medication. The Examiner should also determine if the applicant has a history of complications, adverse reactions to therapy, hospitalization, etc. (Details are given in Items 36, page 63; and Item 55, page 145).
- **18.i.** Stomach, liver, or intestinal trouble. The applicant should provide history and treatment, pertinent medical records, current status report, and medication. If a surgical procedure was done, the applicant must provide operative and pathology reports. (See Item 38, page 76).
- **18.j. Kidney stone or blood in urine.** The applicant should provide history and treatment, pertinent medical records, current status report and medication. If a procedure was done, the applicant must provide the report and pathology reports. (See Item 41, page 85).
- **18.k. Diabetes.** The applicant should describe the condition to include, symptoms and treatment. Comment on the presence or absence of hyperglycemic and/or hypoglycemic episodes. A medical history or clinical diagnosis of diabetes mellitus requiring insulin or other hypoglycemic drugs for control are disqualifying. The Examiner can help expedite the FAA review by assisting the applicant in gathering medical records and submitting a current specialty report. (See Item 48, page 122).

18.I. Neurological disorders; epilepsy, seizures, stroke, paralysis, etc. The applicant should provide history and treatment, pertinent medical records, current status report and medication. The Examiner should obtain details about such a history and report the results. An established diagnosis of epilepsy, a transient loss of control of nervous system function(s), or a disturbance of consciousness is a basis for denial no matter how remote the history. Like all other conditions of aeromedical concern, the history surrounding the event is crucial. Certification is possible if a satisfactory

- **18.m. Mental disorders of any sort; depression, anxiety, etc.** An affirmative answer to Item 18.m. requires investigation through supplemental history taking. Dispositions will vary according to the details obtained. An applicant with an established history of a personality disorder that is severe enough to have repeatedly manifested itself by overt acts, a psychosis disorder, or a bipolar disorder must be denied or deferred by the Examiner. (See Items 46, page 102; and Item 47, page 114).
- **18.n.** Substance dependence; or failed a drug test ever; or substance abuse or use of illegal substance in the last 2 years. "Substance" includes alcohol and other drugs (e.g., PCP, sedatives and hypnotics, anxiolytics, marijuana, cocaine, opioids, amphetamines, hallucinogens, and other psychoactive drugs or chemicals). For a "yes" answer to Item 18.n., the Examiner should obtain a detailed description of the history. A history of substance dependence or abuse is disqualifying. The Examiner must defer issuance of a certificate if there is doubt concerning an applicant's substance use. (See Item 47, page 114).
- 18.o. Alcohol dependence or abuse. See Item 18.n.

explanation can be established. (See Item 46, page 102).

- **18.p.** Suicide attempt. A history of suicidal attempts or suicidal gestures requires further evaluation. The ultimate decision of whether an applicant with such a history is eligible for medical certification rests with the FAA. The Examiner should take a supplemental history as indicated, assist in the gathering of medical records related to the incident(s), and, if the applicant agrees, assist in obtaining psychiatric and/or psychological examinations. (See Item 47, page 114).
- **18.q. Motion sickness requiring medication.** A careful history concerning the nature of the sickness, frequency and need for medication is indicated when the applicant responds affirmatively to this item. Because motion sickness varies with the nature of the stimulus, it is most helpful to know if the problem has occurred in flight or under similar circumstances. (See Item 29, page 44).
- **18.r. Military medical discharge.** If the person has received a military medical discharge, the Examiner should take additional history and record it in Item 60. It is helpful to know the circumstances surrounding the discharge, including dates, and whether the individual is receiving disability compensation. If the applicant is receiving veteran's disability benefits, the claim number and service number are helpful in obtaining copies of pertinent medical records. The fact that the applicant is receiving disability benefits does not necessarily mean that the application should be denied.

18.s. Medical rejection by military service. The Examiner should inquire about the place, cause, and date of rejection and enter the information in Item 60. It is of great assistance to the applicant and the FAA if the Examiner can help obtain copies of military documents for attachment to the FAA Form 8500-8. If a delay of more than 14-calendar days is expected, the Examiner should transmit FAA Form 8500-8 to the FAA with a note specifying what documents will be forwarded later under separate cover.

Disposition will depend upon whether the medical condition still exists or whether a history of such a condition requires denial or deferral under the FAA medical standards.

- **18.t.** Rejection for life or health insurance. The Examiner should inquire regarding the circumstances of rejection. The supplemental history should be recorded in Item 60. Disposition will depend upon whether the medical condition still exists or whether a history of such a condition requires denial or deferral under the FAA medical standards.
- **18.u.** Admission to hospital. For each admission, the applicant should list the dates, diagnoses, duration, treatment, name of the attending physician, and complete address of the hospital or clinic. If previously reported, the applicant may enter "PREVIOUSLY REPORTED, NO CHANGE." A history of hospitalization does not disqualify an applicant, although the medical condition that resulted in hospitalization may.
- **18.v. Conviction and/or Administrative Action History.** The events to be reported are specifically identified in Item 18.v. of FAA Form 8500-8. If "yes" is checked, the applicant must describe the conviction(s) and/or administrative action(s) in the EXPLANATIONS box. The description must include:
 - The alcohol or drug offense for which the applicant was convicted or the type of administrative action involved (e.g., attendance at an educational or rehabilitation program in lieu of conviction; license denial, suspension, cancellation, or revocation for refusal to be tested; educational safe driving program for multiple speeding convictions; etc.);
 - The name of the state or other jurisdiction involved; and
 - The date of the conviction and/or administrative action.

If there have been no new convictions or administrative actions since the last application, the applicant may enter "PREVIOUSLY REPORTED, NO CHANGE." Convictions and/or administrative actions affecting driving privileges may raise questions about the applicant's fitness for certification and may be cause for disqualification. (See Items 18.n. and 47, page 114).

A single driving while intoxicated (DWI) conviction or administrative action usually is not cause for denial if there are no other instances or indications of substance dependence

or abuse. The Examiner should inquire regarding the applicant's alcohol use history, the circumstances surrounding the incident, and document those findings in Item 60, page 151. (See Item 47, page 114).

NOTE: The Examiner should advise the applicant that the reporting of alcohol or drug offenses (i.e., motor vehicle violation) on the history part of the medical application does not relieve the airman of responsibility to report each motor vehicle action to the FAA within 60 days of the occurrence to the Civil Aviation Security Division, AAC-700; P.O. Box 25810; Oklahoma City, OK 73125-0810.

18.w. History of nontraffic convictions. The applicant must report any other (nontraffic) convictions (e.g., assault, battery, public intoxication, robbery, etc.). The applicant must name the charge for which convicted and the date of the conviction(s), and copies of court documents (if available). (See Item 47, page 114).

18.x. Other illness, disability, or surgery. The applicant should describe the nature of these illnesses in the EXPLANATIONS box. If additional records, tests, or specialty reports are necessary in order to make a certification decision, the applicant should so be advised. If the applicant does not wish to provide the information requested by the Examiner, the Examiner should defer issuance.

If the applicant wishes to have the FAA review the application and decide what ancillary documentation is needed, the Examiner should defer issuance of the medical certificate and forward the completed FAA Form 8500-8 to the AMCD. If the Examiner proceeds to obtain documentation, but all data will not be received with the 2 weeks, FAA Form 8500-8 should be transmitted immediately to the AMCD with a note that additional documents will be forwarded later under separate cover.

ITEM 19. VISITS TO HEALTH PROFESSIONAL WITHIN LAST 3 YEARS

19. Visits to H Years	Health Professional Within Last 3		Yes (Explain Below)	NO	See Instructions Page
Date	Name, Address, and Type of Heal Consulted	Ith Profe	essional		Reason

The applicant should list all visits in the last 3 years to a physician, physician assistant, nurse practitioner, psychologist, clinical social worker, or substance abuse specialist for treatment, examination, or medical/mental evaluation. The applicant should list visits for counseling only if related to a personal substance abuse or psychiatric condition. The applicant should give the name, date, address, and type of health professional

consulted and briefly state the reason for the consultation. Multiple visits to one health professional for the same condition may be aggregated on one line.

Routine dental, eye, and FAA periodic medical examinations and consultations with an employer-sponsored employee assistance program (EAP) may be excluded unless the consultations were for the applicant's substance abuse or unless the consultations resulted in referral for psychiatric evaluation or treatment.

When an applicant does provide history in Item 19, the Examiner should review the matter with the applicant. The Examiner will record in Item 60 only that information needed to document the review and provide the basis for a certification decision. If the Examiner finds the information to be of a personal or sensitive nature with no relevancy to flying safety, it should be recorded in Item 60 as follows:

"Item 19. Reviewed with applicant. History not significant or relevant to application."

If the applicant is otherwise qualified, a medical certificate may be issued by the Examiner.

FAA medical authorities, upon review of the application, will ask for further information regarding visits to health care providers only where the physical findings, report of examination, applicant disclosure, or other evidence suggests the possible presence of a disqualifying medical history or condition.

If an explanation has been given on a previous report(s) and there has been no change in the condition, the applicant may enter "PREVIOUSLY REPORTED, NO CHANGE."

Of particular importance is the reporting of conditions that have developed since the applicant's last FAA medical examination. The Examiner is asked to comment on all entries, including those "PREVIOUSLY REPORTED, NO CHANGE." These comments may be entered under Item 60.

ITEM 20. APPLICANT'S NATIONAL DRIVER REGISTER AND CERTIFYING DECLARATION

— NOTICE — Whoever in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or who makes any false, fictitious or fraudulent statements or representations, or entry, may be fined up to \$250,000 or imprisoned not more than 5 years, or both, (18 U.S. Code Secs. 1001; 3571).	I hereby authorize the National Driver information pertaining to my driving i NDR to verify information provided in any, available for my review and wri NOTE: All persons using application for M I hereby certify that all statements and	s National Driver Register and Certifying Declarations Register (NDR), through a designated State Department of Motor Vehicles, to furnish to the FAA ecord. This consent constitutes authorization for a single access to the information contained in the this application. Upon my request, the FAA shall make the information received from the NDR, if ten comment. Authority: 23 U.S. Code 401, Note. this form must sign it. NDR consent, however, does not apply unless this form is used as an edical Certificate or Medical Certificate and Student Pilot Certificate. answers provided by me on this application form are complete and true to the best of my o be considered part of the basis for issuance of any FAA certificate to me. I have also read and that accompanies this form.
	Signature of Applicant	Date MM DD VVVV

In addition to making a declaration of the completeness and truthfulness of the applicant's responses on the medical application, the applicant's declaration authorizes the National Driver Register to release the applicant's adverse driving history information, if any, to the FAA. The FAA uses such information to verify information provided in the application. The applicant should be instructed to sign Item 20 after reading the declaration. The signature should be in ink. If an applicant does not sign the declaration for any reason, the Examiner shall not issue a medical certificate but forward the incomplete application to the AMCD.

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CHAPTER 3

EXAMINATION TECHNIQUES AND CRITERIA FOR QUALIFICATION

ITEMS 21- 48 of FAA Form 8500-8

The Examiner must personally conduct the physical examination. This chapter provides guidance for completion of Items 21-48 of the Application for Airman Medical Certificate or Airman Medical and Student Pilot Certificate, FAA Form 8500-8.

The Examiner must carefully read the applicant's history page of FAA Form 8500-8 (Items 1-20) *before* conducting the physical examination and completing the Report of Medical Examination. This alerts the Examiner to possible pathological findings.

The Examiner must note in Item 60 of the FAA Form 8500-8 any condition found in the course of the examination. The Examiner must list the facts, such as dates, frequency, and severity of occurrence.

When a question arises, the Federal Air Surgeon encourages Examiners first to check this Guide for Aviation Medical Examiners and other FAA informational documents. If the question remains unresolved, the Examiner should seek advice from a RFS or the Manager of the AMCD.

ITEMS 21-22. HEIGHT AND WEIGHT

21. Height (inches)	22. Weight (pounds)
---------------------	---------------------

ITEM 21. Height

Record the applicant's height in inches. Although there are no medical standards for height, exceptionally short individuals may not be able to effectively reach all flight controls and must fly specially modified aircraft. If required, the FAA will place operational limitations on the pilot certificate.

ITEM 22. Weight

Record the applicant's weight in pounds.

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ITEMS 23-24. STATEMENT OF DEMONSTRATED ABILITY (SODA); SODA SERIAL NUMBER

23. Statement of Demonstrated Ability (SODA)				
	Yes		No	Defect Noted:

ITEM 23. Has a SODA ever been issued?

Ask the applicant if a SODA has ever been issued. If the answer is "yes," ask the applicant to show you the document. Then check the "yes" block and record the nature and degree of the defect.

SODA's are valid for an indefinite period or until an adverse change occurs that results in a level of defect worse than that stated on the face of the document.

The FAA issues SODA's for certain static defects, but not for disqualifying condition or conditions that may be progressive. The extent of the functional loss that has been cleared by the FAA is stated on the face of the SODA. If the Examiner finds the condition has become worse, a medical certificate should not be issued even if the applicant is otherwise qualified. The Examiner should also defer issuance if it is unclear whether the applicant's present status represents an adverse change.

The Examiner must take special care not to issue a medical certificate of a higher class than that specified on the face of the SODA even if the applicant appears to be otherwise medically qualified. The Examiner may note in Item 60 the applicant's desire for a higher class.

ITEM 24. SODA Serial Number

24. SODA Serial Number		
2.1.0027.007.44.7.44		

Enter the assigned serial number in the space provided.

ITEMS 25-30. EAR, NOSE AND THROAT (ENT)

CHECK EACH ITEM IN APPROPRIATE COLUMN	Normal	Abnormal
25. Head, face, neck, and scalp		
26. Nose		
27. Sinuses		
28. Mouth and Throat		
29. Ears, general (internal and external canals: Hearing under Item 49)		
30. Ear Drums (Perforation)		

I. Code of Federal Regulations

All Classes: 14 CFR 67.105(b)(c), 67.205(b)(c), and 67.305(b)(c)

- (b) No disease or condition of the middle or internal ear, nose, oral cavity, pharynx, or larynx that -
- (1) Interferes with, or is aggravated by, flying or may reasonably be expected to do so; or
- (2) Interferes with, or may reasonably be expected to interfere with, clear and effective speech communication.
- (c) No disease or condition manifested by, or that may reasonably be expected to be manifested by, vertigo or a disturbance of equilibrium.

II. Examination Techniques

- 1. The *head and neck* should be examined to determine the presence of any significant defects such as:
 - a. Bony defects of the skull
 - b. Gross deformities
 - c. Fistulas
 - d. Evidence of recent blows or trauma to the head
 - e. Limited motion of the head and neck
 - f. Surgical scars
- 2. The *external ear* is seldom a major problem in the medical certification of applicants. Otitis externa or a furuncle may call for temporary disqualification. Obstruction of the

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canal by impacted cerumen or cellular debris may indicate a need for referral to an ENT specialist for examination.

The tympanic membranes should be examined for scars or perforations. Discharge or granulation tissue may be the only observable indication of perforation. Middle ear disease may be revealed by retraction, fluid levels, or discoloration. The normal tympanic membrane is movable and pearly gray in color. Mobility should be demonstrated by watching the drum through the otoscope during a valsalva maneuver.

3. Pathology of the *middle ear* may be demonstrated by changes in the appearance and mobility of the tympanic membrane. The applicant may only complain of stuffiness of the ears and/or loss of hearing. An upper respiratory infection greatly increases the risk of aerotitis media with pain, deafness, tinnitus, and vertigo due to lessened aeration of the middle ear from eustachian tube dysfunction. When the applicant is taking medication for an ENT condition, it is important that the Examiner become fully aware of the underlying pathology, present status, and the length of time the medication has been used. If the condition is not a threat to aviation safety, the treatment consists solely of antibiotics, and the antibiotics have been taken over a sufficient period to rule out the likelihood of adverse side effects, the Examiner may make the certification decision.

The same approach should be taken when considering the significance of prior surgery such as myringotomy, mastoidectomy, or tympanoplasty. Simple perforation without associated symptoms or pathology is not disqualifying. When in doubt, the Examiner should not hesitate to defer issuance and refer the matter to the AMCD. The services of consultant ENT specialists are available to the FAA to help in determining the safety implications of complicated conditions.

- 4. **Unilateral Deafness**. An applicant with unilateral cogenital or acquired deafness should not be denied medical certification if able to pass any of the tests of hearing acuity.
- 5. **Bilateral Deafness**. It is possible for a totally deaf person to qualify for a private pilot certificate. When such an applicant initially applies for medical certification, if otherwise qualified, the AMCD may issue a combination medical/student pilot certificate with the limitation "Valid for Student Pilot Purposes Only." This will allow the student to practice with an instructor before undergoing a pilot check ride for the private pilot's license. When the applicant is ready to take the check ride, he/she must contact AMCD or the RFS for authorization to take a medical flight test (MFT). Upon successful completion of the MFT, the applicant will be issued a SODA, and an operational restriction will be placed on his/her pilot's license that restricts the pilot from flying into airspace requiring radio communication.
- 6. **Hearing Aids**. Under some circumstances, the use of hearing aids may be acceptable. If the applicant is unable to pass any of the above tests without the use of hearing aids, he or she may be tested using hearing aids.

- 7. The **nose** should be examined for the presence of polyps, blood, or signs of infection, allergy, or substance abuse. The Examiner should determine if there is a history of epistaxis with exposure to high altitudes and if there is any indication of loss of sense of smell (anosmia). Polyps may cause airway obstruction or sinus blockage. Infection or allergy may be cause for obtaining additional history. Anosmia is at least noteworthy in that the airman should be made fully aware of the significance of the handicap in flying (inability to receive early warning of gas spills, oil leaks, or smoke). Further evaluation may be warranted.
- 8. Evidence of **sinus** disease must be carefully evaluated by a specialist because of the risk of sudden and severe incapacitation from barotrauma.
- 9. The *mouth and throat* should be examined to determine the presence of active disease that is progressive or may interfere with voice communications. Gross abnormalities that could interfere with the use of personal equipment such as oxygen equipment should be identified.
- 10. The *larynx* should be visualized if the applicant's voice is rough or husky. Acute laryngitis is temporarily disqualifying. Chronic laryngitis requires further diagnostic workup. Any applicant seeking certification for the first time with a functioning tracheostomy, following laryngectomy, or who uses an artificial voice-producing device should be denied or deferred and carefully assessed.

III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

ITEM 25. HEAD, FACE, NECK, AND SCALP

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION			
Head, Face, Neck, and Scalp						
Active fistula of neck, either congenital or acquired, including tracheostomy	All	Submit all pertinent medical information and current status report	Requires FAA Decision			
Loss of bony substance involving the two tables of the cranial vault	All	Submit all pertinent medical information and current status report	Requires FAA Decision			
Deformities of the face or head that would interfere with the proper fitting and	1 st & 2nd	Submit all pertinent medical information and current status report	Requires FAA Decision			
wearing of an oxygen mask	3rd	Submit all pertinent medical information	If deformity does not interfere with administration of supplemental O ² - Issue			

ITEM 26. NOSE

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
		Nose	
Evidence of severe allergic rhinitis ¹	All	Submit all pertinent medical information and current status report	Requires FAA Decision

¹

¹ Hay fever controlled solely by desensitization without requiring antihistamines or other medications is not disqualifying. Applicants with seasonal allergies requiring antihistamines may be certified by the Examiner with the stipulation that they not exercise privileges of airman certification within 24 hours of experiencing symptoms requiring treatment or within 24 hours after taking an antihistamine. The Examiner should document this in Item 60. However, non-sedating antihistamines lorated or fexofenadine may be used while flying, after adequate individual experience has determined that the medication is well tolerated without significant side effects.

EVALUATION DATA DISEASE/CONDITION **DISPOSITION** CLASS Nose Submit all pertinent Requires FAA Decision Obstruction of sinus ΑII ostia, including polyps, medical information that would be likely to and current status result in complete report obstruction

ITEM 27. SINUSES

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION			
Sinuses - Acute or Chronic						
Sinusitis, intermittent use of topical or non-sedating medication	All	Document medication, dose and absence of side effects	Responds to treatment without any side effects - Issue			
Severe-requiring continuous use of medication or effected by barometric changes	All	Submit all pertinent medical information and current status report	Requires FAA Decision			
		Sinus Tumor				
Benign - Cysts/Polyps	All	If no physiologic effects, submit documentation	Asymptomatic, no observable growth over a 12-month period, no potential for sinus block - Issue			
Malignant	All	Submit all pertinent medical information and current status report	Requires FAA Decision			

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ITEM 28. MOUTH AND THROAT

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION			
Mouth and Throat						
Any malformation or condition, including stuttering, that would impair voice communication	All	Submit all pertinent medical information and current status report	Requires FAA Decision			
Palate: Extensive adhesion of the soft palate to the pharynx	All	Submit all pertinent medical information and current status report	Requires FAA Decision			

ITEM 29. EARS, GENERAL

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION			
Inner Ear						
Acute or chronic disease without disturbance of equilibrium and successful miringotomy, if applicable	All	Submit all pertinent medical information	If no physiologic effects - Issue			
Acute or chronic disease that may disturb equilibrium	All	Submit all pertinent medical information and current status report	Requires FAA Decision			
Motion Sickness	All	Submit all pertinent medical information and current status report	If occurred during flight training and resolved - Issue If condition requires medication - Requires FAA Decision			

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DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION			
Mastoids						
Mastoid fistula	All	Submit all pertinent medical information and current status report	Requires FAA Decision			
Mastoiditis, acute or chronic	All	Submit all pertinent medical information and current status report	Requires FAA Decision			
		Middle Ear				
Acoustic Neuroma	All	Submit all pertinent medical information and current status report * See Neurology Table page 113	Requires FAA Decision			
Impaired Aeration	All	Submit all pertinent medical information and current status report	Requires FAA Decision			
Otitis Media	All	Submit all pertinent medical information and current status report	If acute and resolved – Issue If active or chronic - Requires FAA Decision			
		Outer Ear				
Impacted Cerumen	All	Submit all pertinent medical information and current status report	If asymptomatic and hearing is unaffected - Issue Otherwise - Requires FAA Decision			
Otitis Externa that may progress to impaired hearing or become incapacitating	All	Submit all pertinent medical information and current status report	Requires FAA Decision			

ITEM 30. EAR DRUMS

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
		Ear Drums	
Perforation that has associated pathology	All	Establish etiology, treatment, and submit all pertinent medical information	Requires FAA Decision
Perforation which has resolved without any other clinical symptoms	All	Submit all pertinent medical information	If no physiologic effects - Issue

Otologic Surgery. A history of otologic surgery is not necessarily disqualifying for medical certification. The FAA evaluates each case on an individual basis following review of the otologist's report of surgery. The type of prosthesis used, the person's adaptability and progress following surgery, and the extent of hearing acuity attained are all major factors to be considered. Examiners should defer issuance to an applicant presenting a history of otologic surgery for the first time, sending the completed report of medical examination, with all available supplementary information, to the AMCD.

Some conditions may have several possible causes or exhibit multiple symptomatology. Episodic disorders of dizziness or disequilibrium require careful evaluation and consideration by the FAA. Transient processes, such as those associated with acute labyrinthitis or benign positional vertigo may not disqualify an applicant when fully recovered. (Also see Item 46, page 102 for a discussion of syncope and vertigo).

ITEMS 31-34. EYE

CHECK EACH ITEM IN APPROPRIATE COLUMN	Normal	Abnormal
31. Eyes, general (vision under Items 50 to 54)		
32. Ophthalmoscopic		
33. Pupils (Equity and reaction)		
34. Ocular motility (Associated parallel movement nystagmus)		

I. Code of Federal Regulations

All Classes: 14 CFR 67.103(e), 67.203(e), and 67.303(d)

(e) No acute or chronic pathological condition of either the eye or adnexa that interferes with the proper function of the eye, that may reasonably be expected to progress to that degree, or that may reasonably be expected to be aggravated by flying.

II. Examination Techniques

For guidance regarding the conduction of visual acuity, field of vision, heterophoria, and color vision tests, please refer to Chapter 4, Items 50-54, page 132.

The examination of the eyes should be directed toward the discovery of diseases or defects that may cause a failure in visual function while flying or discomfort sufficient to interfere with safely performing airman duties.

The Examiner should personally explore the applicant's history by asking questions concerning any changes in vision, unusual visual experiences (halos, scintillations, etc.), sensitivity to light, injuries, surgery, or current use of medication. Does the applicant report inordinate difficulties with eye fatigue or strain? Is there a history of serious eye disease such as glaucoma or other disease commonly associated with secondary eye changes, such as diabetes? (Also see Item 53, page 141; and Item 54, page 143).

- 1. It is recommended that the Examiner consider the following signs during the course of the eye examination:
 - a. *Color* redness or suffusion of allergy, drug use, glaucoma, infection, trauma, jaundice, ciliary flush of Iritis, and the green or brown Kayser-Fleischer Ring of Wilson's disease.
 - b. Swelling abscess, allergy, cyst, exophthalmos, myxedema, or tumor.
 - c. *Other* clarity, discharge, dryness, ptosis, protosis, spasm (tic), tropion, or ulcer.
- 2. Ophthalmoscopic examination. It is suggested that a routine be established for ophthalmoscopic examinations to aid in the conduct of a comprehensive eye assessment. Routine use of a mydriatic is not recommended.
 - a. *Cornea* observe for abrasions, calcium deposits, contact lenses, dystrophy, keratoconus, pterygium, scars, or ulceration. Contact lenses should be removed several hours before examination of the eye. (See Item 50, page 132).
 - b. *Pupils and Iris* check for the presence of synechiae and uveitis. Size, shape, and reaction to light should be evaluated during the ophthalmoscopic examination. Observe for coloboma, reaction to light, or disparity in size.
 - c. Aqueous hyphema or iridocyclitis.
 - d. *Lens* observe for aphakia, discoloration, dislocation, cataract, or an implanted lens.

- e. Vitreous note discoloration, hyaloid artery, floaters, or strands.
- f. Optic nerve observe for atrophy, hemorrhage, cupping, or papilledema.
- g. Retina and choroid examine for evidence of coloboma, choroiditis, detachment of the retina, diabetic retinopathy, retinitis, retinitis pigmentosa, retinal tumor, macular or other degeneration, toxoplasmosis, etc.
- 3. Ocular Motility. Motility may be assessed by having the applicant follow a point light source with both eyes, the Examiner moving the light into right and left upper and lower quadrants while observing the individual and the conjugate motions of each eye. The Examiner then brings the light to center front and advances it toward the nose observing for convergence. End point nystagmus is a physiologic nystagmus and is not considered to be significant. It need not be reported. (See Item 50, page 132 for further consideration of nystagmus).
- 4. Monocular Vision. An applicant will be considered monocular when there is only one eye or when the best corrected distant visual acuity in the poorer eye is no better than 20/200. An individual with one eye, or effective visual acuity equivalent to monocular, may be considered for medical certification, any class, through the special issuance section of part 67 (14 CFR 67.401).

In amblyopia ex anopsia, the visual acuity loss is simply recorded in Item 50 of FAA Form 8500-8, and visual standards are applied as usual. If the standards are not met, a Report of Eye Evaluation, FAA Form 8500-7, should be submitted for consideration.

Although it has been repeatedly demonstrated that binocular vision is not a prerequisite for flying, some aspects of depth perception, either by stereopsis or by monocular cues, are necessary. It takes time for the monocular airman to develop the techniques to interpret the monocular cues that substitute for stereopsis; such as, the interposition of objects, convergence, geometrical perspective, distribution of light and shade, size of known objects, aerial perspective, and motion parallax.

In addition, it takes time for the monocular airman to compensate for his or her decrease in effective visual field. A monocular airman's effective visual field is reduced by as much as 30% by monocularity. This is especially important because of speed smear; i.e., the effect of speed diminishes the effective visual field such that normal visual field is decreased from 180 degrees to as narrow as 42 degrees or less as speed increases. A monocular airman's reduced effective visual field would be reduced even further than 42 degrees by speed smear.

For the above reasons, a waiting period of 6 months is recommended to permit an adequate adjustment period for learning techniques to interpret monocular cues and accommodation to the reduction in the effective visual field.

Applicants who have had monovision secondary to refractive surgery may be certificated, providing they have corrective vision available that would provide binocular vision in accordance with the vision standards, while exercising the privileges of the certificate. The certificate issued must have the appropriate vision limitations statement.

5. Contact Lenses. The use of a contact lens in one eye for distant visual acuity (monovision) and another in the other eye for near or intermediate visual acuity is not acceptable for aviation duties. Experience has indicated no significant risk to aviation safety in the use of contact lenses for distant vision correction. As a consequence, no special evaluation is routinely required before the use of contact lenses is authorized, and no SODA is required or issued to a contact lens wearer who meets the standards and has no complications.

Designer contact lenses that introduce color (tinted lenses), restrict the field of vision, or significantly diminish transmitted light, are not acceptable.

Bifocal contact lenses or contact lenses that correct for near and/or intermediate vision only are **not** considered acceptable for aviation duties.

- 6. Orthokeratology is acceptable for medical certification purposes, provided the airman can demonstrate corrected visual acuity in accordance with medical standards defined in 14 CFR part 67. When corrective contact lenses are required to meet vision standards, the medical certificate must have the appropriate limitation annotated. Advise airmen that they must follow the prescribed or proper use of orthokeratology lenses to ensure compliance with 14 CFR 61.53. Airmen should consider possible rotation, changes, or extensions of their work schedules when deciding on orthokeratology retainer lens use.
- 7. Glaucoma. The Examiner should deny or defer issuance of a medical certificate to an applicant if there is a loss of visual fields, a significant change in visual acuity, a diagnosis of or treatment for glaucoma, or newly diagnosed intraocular hypertension.

The FAA may grant an Authorization under the special issuance section of Part 67 (14 CFR 67.401) on an individual basis. The Examiner can facilitate FAA review by obtaining a report of Ophthalmological Evaluation for Glaucoma (FAA Form 8500-14) from a treating or evaluating ophthalmologist, also see AME assisted protocol. Because secondary glaucoma is caused by known pathology such as; uveitis or trauma, eligibility must largely depend upon that pathology. Secondary glaucoma is often unilateral, and if the cause or disease process is no longer active and the other eye remains normal certification is likely.

Applicants with primary or secondary narrow angle glaucoma are usually denied because of the risk of an attack of angle closure, because of incapacitating symptoms of severe pain, nausea, transitory loss of accommodative power, blurred vision, halos, epiphora, or iridoparesis. Central venous occlusion can occur with catastrophic loss of vision. However, when surgery such as iridectomy or iridencleisis has been performed

satisfactorily more than 3 months before the application, the likelihood of difficulties is considerably more remote, and applicants in that situation may be favorably considered by the FAA.

An applicant with unilateral or bilateral open angle glaucoma may be certified by the FAA (with follow-up required) when a current ophthalmological report substantiates that pressures are under adequate control, there is little or no visual field loss or other complications, and the person tolerates small to moderate doses of allowable medications. Individuals who have had filter surgery for their glaucoma, or combined glaucoma/cataract surgery, can be considered when stable and without complications. A few applicants have been certified following their demonstration of adequate control with oral medication. Neither miotics nor mydriatics are necessarily medically disqualifying.

However, miotics such as pilocarpine cause pupillary constriction and could conceivably interfere with night vision. Although the FAA no longer routinely prohibits pilots who use such medications from flying at night, it may be worthwhile for the Examiner to discuss this aspect of the use of miotics with applicants. If considerable disturbance in night vision is documented, the FAA may limit the medical certificate: NOT VALID FOR NIGHT FLYING

- 8. Sunglasses. Sunglasses are not acceptable as the only means of correction to meet visual standards, but may be used for backup purposes if they provide the necessary correction. Airmen should be encouraged to use sunglasses in bright daylight but must be cautioned that, under conditions of low illumination, they may compromise vision. Mention should be made that sunglasses do not protect the eyes from the effects of ultra violet radiation without special glass or coatings and that photosensitive lenses are unsuitable for aviation purposes because they respond to changes in light intensity too slowly. The so-called "blue blockers" may not be suitable since they block the blue light used in many current panel displays. Polarized sunglasses are unacceptable if the windscreen is also polarized.
- 9. Refractive Surgery. An applicant who has been treated with refractive surgery may be issued a medical certificate by the Examiner if the applicant meets the visual acuity standards and the Report of Eye Evaluation (FAA Form 8500-7) indicates that healing is complete, visual acuity remains stable, and the applicant does not suffer sequela such as; glare intolerance, halos, rings, impaired night vision, or any other complications. This state of recovery is usually reached within 6- to 12-weeks after surgery. The Examiner may, of course, defer issuance and forward the ophthalmology report to the AMCD.

General Information: Applicants with many of the foregoing conditions may be found qualified for FAA certification following the receipt and review of specialty evaluations and pertinent medical records. Examples include retinal detachment with surgical correction, open angle glaucoma under adequate control with medication, and narrow angle glaucoma following surgical correction.

The Examiner may not issue a certificate under such circumstances for the initial application, except in the case of applicants following cataract surgery. The Examiner may issue a certificate after cataract surgery for applicants who have undergone cataract surgery with or without lens(es) implant. If pertinent medical records and a current ophthalmologic evaluation (using FAA Form 8500-7 or FAA Form 8500-14) indicate that the applicant meets the standards, the FAA may delegate authority to the Examiner to issue subsequent certificates.

If there is a question regarding the need for a current specialty evaluation, the Examiner should not obtain the evaluation, but should instead transmit the completed application (FAA Form 8500-8) and forward any available medical records to the AMCD.

III. Aerospace Medical Disposition

Applicants with many visual conditions may be found qualified for FAA certification following the receipt and review of specialty evaluations and pertinent medical records. Examples include retinal detachment with surgical correction, open angle glaucoma under adequate control with medication, and narrow angle glaucoma following surgical correction.

The Examiner may not issue a certificate under such circumstances for the initial application, except in the case of applicants following cataract surgery. The Examiner may issue a certificate after cataract surgery for applicants who have undergone cataract surgery with or without lens(es) implant. If pertinent medical records and a current ophthalmologic evaluation (using FAA Form 8500-7 or FAA Form 8500-14) indicate that the applicant meets the standards, the FAA may delegate authority to the Examiner to issue subsequent certificates.

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

ITEM 31. EYES, GENERAL

DISEASE/CONDITION	CLASS	EVALUTION DATA	DISPOSITION	
Eyes, General				
Amblyopia ² Initial certification	All	Provide completed FAA Form 8500-7 Note: applicant should be at best corrected visual acuity before evaluation	If applicant does not correct to standards, add the following limitation to the medical certificate: "Valid for Student Pilot Purposes Only," and request a medical flight test	
Any ophthalmic pathology reflecting a serious systemic disease (e.g., diabetic and hypertensive retinopathy)	All	Submit all pertinent medical information and current status report. (If applicable, see Diabetes and Hypertensive Protocols)	Requires FAA Decision	
Any other acute or chronic pathological condition of either eye or adnexa that interferes with the proper function of an eye	All	Submit all pertinent medical information and current status report	Requires FAA Decision	
Aphakia/Lens Implants	All	Submit all pertinent medical information and current status report (See additional disease dependent requirements)	If visual acuity meets standards - Issue Otherwise - Requires FAA Decision	

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 $^{^2}$ In amblyopia ex anopsia, the visual acuity of one eye is decreased without presence of organic eye disease, usually because of strabismus or anisometropia in childhood.

DISEASE/CONDITION CLASS **EVALUTION DATA DISPOSITION** Eyes, General ΑII Contact RFS for Diplopia If applicant provides written evidence that approval to Issue the FAA has previously considered and determined that this condition is not Otherwise - Requires FAA Decision adverse to flight safety. A MFT may be requested. Hereditary, acquired ΑII Provide completed FAA Requires FAA Decision conditions or Form 8500-7 congenital³ Note: applicant should be at best corrected visual acuity before evaluation Pterygium ΑII Document findings in If less than 50% of the Item #60 cornea and not effecting central vision - Issue Otherwise - Requires **FAA Decision** All Refractive Surgery Provide completed If visual acuity meets FAA Form 8500-7, standards, is stable, type and date of and no complications exist - Issue procedure, statement as to any complications (halo, glare, haze, rings, etc.) Otherwise - Requires **FAA Decision**

³ Whether acute or chronic, of either eye or adnexa, that may interfere with visual functions, may progress to that degree, or may be aggravated by flying (tumors and ptosis obscuring the pupil, acute inflammatory disease of the eyes and lids, cataracts, or orthokeratology).

ITEM 32. OPHTHALMOSCOPIC

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Ophthalmoscopic				
Chorioretinitis; Coloboma; Corneal Ulcer or Dystrophy; Optic Atrophy or Neuritis; Retinal Degeneration or Detachment; Retinitis Pigmentosa; Papilledema; or Uveitis	All	Submit all pertinent medical information and current status report	Requires FAA Decision	
Glaucoma (treated or untreated)	All	Submit all pertinent medical information and current status report	Initial Special Issuance - Requires FAA Decision Followup Special Issuance's - See AASI Protocol	
Macular Degeneration; Macular Detachment	All	Submit all pertinent medical information and current status report	Requires FAA Decision	
Tumors	All	Submit all pertinent medical information and current status report	Requires FAA Decision	
Vascular Occlusion; Retinopathy	All	Submit all pertinent medical information and current status report	Requires FAA Decision	

ITEM 33. PUPILS

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Pupils				
Disparity in size or reaction to light (afferent pupillary defect) requires clarification and/or further evaluation	All	Submit all pertinent medical information and current status report	Requires FAA Decision	
Nonreaction to light in either eye acute or chronic	All	Submit all pertinent medical information and current status report	Requires FAA Decision	
Nystagmus⁴	All	Submit all pertinent medical information and current status report	Requires FAA Decision	
Synechiae, anterior or posterior	All	Submit all pertinent medical information and current status report	Requires FAA Decision	

ITEM 34. OCULAR MOTILITY

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
	Ocula	ar Motility	
Absence of conjugate alignment in any quadrant	All	Submit all pertinent medical information and current status report	Requires FAA Decision

⁴Nystagmus of recent onset is cause to deny or defer certificate issuance. Any recent neurological or other evaluations available to the Examiner should be submitted to the AMCD. If nystagmus has been present for a number of years and has not recently worsened, it is usually necessary to consider only the impact that the nystagmus has upon visual acuity. The Examiner should be aware of how nystagmus may be aggravated by the forces of acceleration commonly encountered in aviation and by poor illumination.

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DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Ocular Motility				
Inability to converge on a near object	All	Submit all pertinent medical information and current status report	Requires FAA Decision	
Paralysis with loss of ocular motion in any direction	All	Submit all pertinent medical information and current status report	Requires FAA Decision	

ITEM 35. LUNGS AND CHEST

CHECK EACH ITEM IN APPROPRIATE COLUMN	Normal	Abnormal
35. Lungs and chest (Not including breasts examination)		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

- (b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds -
 - (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges;
- (c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -
 - (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

Breast examination: The breast examination is performed only at the applicant's option or if indicated by specific history or physical findings. If a breast examination is performed, the results are to be recorded in Item 60 of FAA Form 8500-8. The applicant should be advised of any abnormality that is detected, then deferred for further evaluation.

III. Aerospace Medical Dispositions

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
		Allergies	
Allergies, severe	All	Submit all pertinent medical information and current status report, include duration of symptoms, name and dosage of drugs and side effects	Requires FAA Decision

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DISEASE/CONDITION **CLASS EVALUATION DATA DISPOSITION Allergies** Hay fever controlled ΑII Submit all pertinent If responds to treatment medical information and without side effects solely by desensitization and current status - Issue without report, include antihistamines or duration of symptoms, other medications⁵⁶⁷ name and dosage of drugs and side effects Otherwise - Requires **FAA Decision Asthma** Frequent severe ΑII Submit all pertinent Initial Special asthmatic symptoms medical information **Issuance** - Requires **FAA Decision** and current status report, include PFT's, duration of symptoms, Followup name and dosage of Special Issuance's drugs and side effects See AASI Protocol

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⁵ Applicants with seasonal allergies requiring antihistamines may be certified by the Examiner with the stipulation that they not exercise privileges of airman certification within 24 hours of experiencing symptoms requiring treatment or within 24 hours after taking an antihistamine. The Examiner should document this in Item 60.

⁶ Individuals who have hay fever that requires only occasional seasonal therapy may be certified by the Examiner with the stipulation that they not fly during the time when symptoms occur and treatment is required.

⁷ Nonsedating antihistamines including loratadine, or fexofenadine may be used while flying, after adequate individual experience has determined that the medication is well tolerated without significant side effects.

DISEASE/CONDITION **CLASS EVALUATION DATA DISPOSITION Asthma** ΑII Submit all pertinent Mild or seasonal If attacks are infrequent asthmatic symptoms⁸ medical information and no symptoms in flight - Issue and current status report, include duration of symptoms, name and dosage of drugs, and side effects **Chronic Obstructive Pulmonary Disease (COPD)** Chronic bronchitis, ΑII Submit all pertinent **Initial Special Issuance** medical information - Requires FAA Decision emphysema, or COPD⁹ and current status report. Include an **Followup** FVC/FEV1 Special Issuance's -See AASI Protocol Infectious Disease of the Lungs, Pleura, or Mediastinum **Abscesses** ΑII Submit all pertinent Requires FAA Decision medical information and current status report Active Mycotic disease Active Tuberculosis

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⁸ If the applicant otherwise meets the medical standards and currently requires no treatment, the Examiner may Issue. However, a history of frequent severe attacks is disqualifying. Certificate issuance may be possible in other cases. If additional information is obtained, it must be submitted to the FAA.

⁹ Certification may be granted, by the FAA, when the condition is mild without significant impairment of pulmonary functions. If the applicant has frequent exacerbations or any degree of exertional dyspnea, certification should be deferred.

DISEASE/CONDITION **CLASS EVALUATION DATA DISPOSITION** Infectious Disease of the Lungs, Pleura, or Mediastinum ΑII Requires FAA Decision Fistula. Submit all pertinent Bronchopleural, medical information to include and current status Thoracostomy report ΑII Submit all pertinent Lobectomy Requires FAA Decision medical information and current status report **Pulmonary Fibrosis** ΑII Submit all pertinent If >75% predicted and medical information, no impairment - Issue current status report, PFT's with diffusion capacity Otherwise - Requires **FAA Decision** Sleep Apnea ΑII Submit all pertinent Obstructive Sleep **Initial Special Issuance** medical information - Requires FAA Decision **Apnea** and current status report. Include sleep **Followup** Special Issuance's study with a polysonogram, use of See AASI Protocol medications and titration study results Periodic Limb ΑII Submit all pertinent Requires FAA Decision medical information Movement, etc. and current status report. Include sleep study with a polysonogram, use of medications and titration study results, along with a statement regarding Restless Leg Syndrome

DISEASE/CONDITION **CLASS EVALUATION DATA** DISPOSITION **Pleura and Pleural Cavity** Acute fibrinous ΑII Requires FAA Decision Submit all pertinent medical information pleurisy; and current status Empyema; report, and PFT's Pleurisy with effusion; or Pneumonectomy ΑII Malignant tumors or Submit all pertinent Requires FAA Decision cysts of the lung, medical information pleura, mediastinum, and current status or the breast report Other diseases or ΑII Submit all pertinent Requires FAA Decision medical information defects of the lungs and current status or chest wall that require use of report medication or that could adversely affect flying or endanger the applicant's well-being if permitted to fly Pneumothorax -ΑII Submit all pertinent If 3 months after Traumatic medical information resolution - Issue and current status report Sarcoid, if more than All Submit all pertinent Requires FAA Decision minimal involvement medical information or if symptomatic and current status report

DISEASE/CONDITION **CLASS EVALUATION DATA DISPOSITION Pleura and Pleural Cavity** Requires FAA Decision Spontaneous ΑII Submit all pertinent pneumothorax¹⁰ medical information and current status report **Pulmonary Bronchiectasis** ΑII Submit all pertinent If moderate to severe medical information and current status Requires FAA Decision report

¹⁰ A history of a single episode of spontaneous pneumothorax is considered disqualifying for airman medical certification until there is x-ray evidence of resolution and until it can be determined that no condition that would be likely to cause recurrence is present (i.e., residual blebs). On the other hand, an individual who has sustained a repeat pneumothorax normally is not eligible for certification until surgical interventions are carried out to correct the underlying problem. A person who has such a history is usually able to resume airmen duties 3 months after the surgery. No special limitations on flying at altitude are applied.

ITEM 36. HEART

CHECK EACH ITEM IN APPROPRIATE COLUMN	Normal	Abnormal
36. Heart (Precordial activity, rhythm, sounds, and murmurs)		

I. Code of Federal Regulations:

First-Class: 14 CFR 67.111(a)(b)(c)

Cardiovascular standards for first-class airman medical certificate are:

- (a) No established medical history or clinical diagnosis of any of the following:
 - (1) Myocardial infarction
 - (2) Angina pectoris
- (3) Coronary heart disease that has required treatment or, if untreated, that has been symptomatic or clinically significant
 - (4) Cardiac valve replacement
 - (5) Permanent cardiac pacemaker implantation; or
 - (6) Heart replacement
- (b) A person applying for first-class airman medical certification must demonstrate an absence of myocardial infarction and other clinically significant abnormality on electrocardiographic examination:
 - (1) At the first application after reaching the 35th birthday; and
 - (2) On an annual basis after reaching the 40th birthday
- (c) An electrocardiogram will satisfy a requirement of paragraph (b) of this section if it is dated no earlier than 60 days before the date of the application it is to accompany and was performed and transmitted according to acceptable standards and techniques.

Second- and Third-Class: 14 CFR 67.211(a)(b)(c)(d)(e)(f) and 67.311(a)(b)(c)(d)(e)(f)

Cardiovascular standards for a second- and third-class airman medical certificate are no established medical history or clinical diagnosis of any of the following:

- (a) Myocardial infarction
- (b) Angina pectoris
- (c) Coronary heart disease that has required treatment or, if untreated, that has been symptomatic or clinically significant
 - (d) Cardiac valve replacement
 - (e) Permanent cardiac pacemaker implantation; or
 - (f) Heart replacement

II. Examination Techniques

- A. General Physical Examination.
 - 1. A brief description of any comment-worthy personal characteristics as well as height, weight, representative blood pressure readings in both arms, funduscopic examination, condition of peripheral arteries, carotid artery auscultation, heart size, heart rate, heart rhythm, description of murmurs (location, intensity, timing, and opinion as to significance), and other findings of consequence must be provided.
 - 2. The Examiner should keep in mind some of the special cardiopulmonary demands of flight, such as changes in heart rates at takeoff and landing. High G-forces of aerobatics or agricultural flying may stress both systems considerably. Degenerative changes are often insidious and may produce subtle performance decrements that may require special investigative techniques.
 - a. Inspection. Observe and report any thoracic deformity (e.g., pectus excavatum), signs of surgery or other trauma, and clues to ventricular hypertrophy. Check the hematopoietic and vascular system by observing for pallor, edema, varicosities, stasis ulcers, and venous distention. Check the nail beds for capillary pulsation and color.
 - b. Palpation. Check for thrills and the vascular system for arteriosclerotic changes, shunts, or AV anastomoses. The pulses should be examined to determine their character, to note if they are diminished or absent, and to observe for synchronicity. The medical standards do not specify pulse rates that, per se, are disqualifying for medical certification. These tests are used,

however, to determine the status and responsiveness of the cardiovascular system. Abnormal pulse rates may be reason to conduct additional cardiovascular system evaluations.

- (1). Bradycardia of less than 50 beats per minute, any episode of tachycardia during the course of the examination, and any other irregularities of pulse other than an occasional ectopic beat or sinus arrhythmia must be noted and reported. If there is bradycardia, tachycardia, or arrhythmia further evaluation may be warranted and deferral may be indicated.
- (2). A cardiac evaluation may be needed to determine the applicant's qualifications. Temporary stresses or fever may, at times, result in abnormal results from these tests. If the Examiner believes this to be the case, the applicant should be given a few days to recover and then be retested. If this is not possible, the Examiner should defer issuance, pending further evaluation.
- c. Percussion. Determine heart size, diaphragmatic elevation/excursion, abnormal densities in the pulmonary fields, and mediastinal shift.
- d. Auscultation. Check for resonance, asthmatic wheezing, ronchi, rales, cavernous breathing of emphysema, pulmonary or pericardial friction rubs, quality of the heart sounds, murmurs, heart rate, and rhythm. If a murmur is discovered during the course of conducting a routine FAA examination, report its character, loudness, timing, transmission, and change with respiration. It should be noted whether it is functional or organic and if a special examination is needed. If the latter is indicated, the Examiner should defer issuance of the medical certificate and transmit the completed FAA Form 8500-8 to the FAA for further consideration. Listen to the neck for bruits.

It is recommended that the Examiner conduct the auscultation of the heart with the applicant both in a sitting and in a recumbent position.

Aside from murmur, irregular rhythm, and enlargement, the Examiner should be careful to observe for specific signs that are pathognomonic for specific disease entities or for serious generalized heart disease. Examples of such evidence are: (1) the opening snap at the apex or fourth left intercostal space signifying mitral stenosis; (2) gallop rhythm indicating serious impairment of cardiac function; and (3) the middiastolic rumble of mitral stenosis.

B. When General Examinations Reveal Heart Problems.

These specifications have been developed by the FAA to determine an applicant's eligibility for airman medical certification. Standardization of examination methods and reporting is essential to provide sufficient basis for making determinations and the prompt processing of applications.

- 1. This cardiovascular evaluation, therefore, must be reported in sufficient detail to permit a clear and objective evaluation of the cardiovascular disorder(s) with emphasis on the degree of functional recovery and prognosis. It should be forwarded to the FAA immediately upon completion. Inadequate evaluation, reporting, or failure to promptly submit the report to the FAA may delay the certification decision.
 - a. Medical History. Particular reference should be given to cardiovascular abnormalities-cerebral, visceral, and/or peripheral. A statement must be included as to whether medications are currently or have been recently used, and if so, the type, purpose, dosage, duration of use, and other pertinent details must be provided. A specific history of any anticoagulant drug therapy is required. In addition, any history of hypertension must be fully developed and if thiazide diuretics are being taken, values for serum potassium should be reported, as well as any important or unusual dietary programs.
 - b. Family, Personal, and Social History. A statement of the ages and health status of parents and siblings is required; if deceased, cause and age at death should be included. Also, any indication of whether any near blood relative has had a "heart attack," hypertension, diabetes, or known disorder of lipid metabolism must be provided. Smoking, drinking, and recreational habits of the applicant are pertinent as well as whether a program of physical fitness is being maintained. Comments on the level of physical activities, functional limitations, occupational, and avocational pursuits are essential.
 - c. Records of Previous Medical Care. If not previously furnished to the FAA, a copy of pertinent hospital records as well as out-patient treatment records with clinical data, x-ray, laboratory observations, and originals or copies of all electrocardiographic (ECG) tracings should be provided. Detailed reports of surgical procedures as well as cerebral and coronary arteriography and other major diagnostic studies are of prime importance.
 - d. Surgery. The presence of an aneurysm or obstruction of a major vessel of the body is disqualifying for medical certification of any class. Following successful surgical intervention and correction, the applicant may ask for FAA consideration. The FAA recommends that the applicant recover for at least 3 months for ATCS's and 6 months for airmen.

A history of coronary artery bypass surgery is disqualifying for certification. Such surgery does not negate a past history of coronary heart disease. The presence of

permanent cardiac pacemakers and artificial heart valves is also disqualifying for certification.

The FAA will consider an Authorization for a Special Issuance of a Medical Certificate (Authorization) for most cardiac conditions. Applicants seeking further FAA consideration should be prepared to submit all past records and a report of a complete current cardiovascular evaluation in accordance with FAA specifications.

C. Medication.

- 1. Medications acceptable to the FAA for treatment of hypertension in applicants include all Food and Drug Administration (FDA) approved diuretics, alphaadrenergic blocking agents, beta-adrenergic blocking agents, calcium channel blocking agents, angiotension converting enzyme (ACE inhibitors) agents, and direct vasodilators. Centrally acting agents (such as, reserpine, guanethidine, guanadrel, guanabenz, and methyldopa) are usually **not** acceptable to the FAA. Dosage levels should be the minimum necessary to obtain optimal clinical control and should not be modified to influence the certification decision.
- 2. The Examiner may submit for the Federal Air Surgeon's review requests for Authorization under the special issuance section of part 67 (14 CFR 67.401) in cases in which these or other usually unacceptable medications are used. Specialty evaluations are required in such cases and must provide information on why the specific drug is required. The Examiner's own recommendation should be included. The Examiner must defer issuance of a medical certificate to any applicant whose hypertension is being treated with unacceptable medications. The use of nitrates for the treatment for coronary artery disease or to modify hemodynamics is unacceptable.

The use of flecainide is unacceptable when there is evidence of left ventricular dysfunction or recent myocardial infarction.

III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION		
	Arrhythmias				
Bradycardia (<50 bpm)	All	Document history and findings, CVE Protocol, and submit any tests deemed appropriate	If no evidence of structural, functional or coronary heart disease - Issue Otherwise - Requires FAA Decision		
Left Bundle Branch Block	All	CVE Protocol and radionuclide GXT scan	If no evidence of structural, functional or coronary heart disease - Issue Otherwise - Requires FAA Decision		
Acquired Right Bundle Branch Block	All	CVE Protocol and radionuclide GXT scan	If no evidence of structural, functional or coronary heart disease - Issue Otherwise - Requires FAA Decision		
History of Implanted Pacemakers	All	See Implanted Pacemaker Protocol	Requires FAA Decision		
PAC (2 or more on ECG)	All	Requires evaluation, e.g., check for MVP, caffeine, pulmonary disease, thyroid, etc.	If no evidence of structural, functional or coronary heart disease - Issue Otherwise - Requires FAA Decision		
PVC's (2 or more on standard ECG)	All	Max GXT – to include a baseline ECG	If no evidence of structural, functional or coronary heart disease and PVC's resolve with exercise - Issue Otherwise - Requires FAA Decision		

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
1 st Degree AV Block	All	Document history and findings, CVE Protocol, and submit any tests deemed appropriate	If no evidence of structural, functional or coronary heart disease - Issue Otherwise - Requires FAA Decision
2 nd Degree AV Block Mobitz I	All	Document history and findings, CVE Protocol, and submit any tests deemed appropriate	If no evidence of structural, functional or coronary heart disease - Issue Otherwise - Requires FAA Decision
2 nd Degree AV Block Mobitz II	All	CVE Protocol in accordance w/ Hypertensive Evaluation Specifications and 24-hour Holter	Requires FAA Decision
3 rd Degree AV Block	All	CVE Protocol in accordance w/ Hypertensive Evaluation Specifications and 24-hour Holter	Requires FAA Decision
Preexcitation	All	CVE Protocol, GXT, and 24-hour Holter	Requires FAA Decision
RF Ablation	All	3-month wait, then 24-hour Holter	If Holter negative for arrhythmia, no recurrence – Issue Otherwise - Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Arrhythmias				
Supraventricular Tachycardia	All	CHD Protocol with ECHO and 24-hour Holter	Initial Special Issuance - Requires FAA Decision Followup Special Issuance's - See AASI Protocol	
Syncope	All	CHD Protocol with ECHO and 24-hour Holter; bilat- carotid US * See Neurology Table, page 111	Requires FAA Decision	
	At	trial Fibrillation		
History of Atrial Fibrillation >5 years ago	All	Document previous workup for CAD and structural heart disease	If no ischemia, no history of emboli, no structural or functional heart disease - Issue Otherwise - Requires	
Chronic	All	CHD Protocol with ECHO and 24-hour Holter	FAA Decision Requires FAA Decision	
Paroxysmal/Lone	All	CHD Protocol with ECHO and 24-hour Holter	Initial Special Issuance - Requires FAA Decision Followup Special Issuance's - See AASI Protocol	

NOTE: Syncope, not satisfactorily explained or recurrent requires deferral (even though the syncope episode may be medically explained, an aeromedical certification decision may still be precluded). Syncope may involve cardiovascular, neurological, and psychiatric factors.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Coronary Heart Disease				
Angina Pectoris	All	See CHD Protocol	Requires FAA Decision	
Myocardial Infarct	All	See CHD Protocol	Requires FAA Decision	
Atherectomy; CABG; PTCA; Rotoblation; or STENT	All	See CHD Protocol	Requires FAA Decision	
	ŀ	Hypertension		
Hypertension requiring medication		See Hypertension Protocol	If controlled and no complications - Issue	
			Otherwise - Requires FAA Decision	
	Va	alvular Disease		
All Other Valvular Disease	All	CHD Protocol with ECHO	Requires FAA Decision	
Aortic and Mitral Insufficiency	All	CHD Protocol with ECHO	Initial Special Issuance - Requires FAA Decision	
			Followup Special Issuance's - See AASI Protocol	
Valve Replacement	All	See Valve Replacement Protocol	Requires FAA Decision	
Valvuloplasty	All	See Valvuloplasty Protocol	Requires FAA Decision	

Other Cardiac Conditions

The following conditions must be deferred:

- 1. Heart Transplant at the present time, due to the unpredictability of segmental coronary artery disease, certification is not being granted.
- 2. Cardiac decompensation.
- 3. Congenital heart disease accompanied by cardiac enlargement, ECG abnormality, or evidence of inadequate oxygenation.
- 4. Hypertrophy or dilatation of the heart as evidenced by clinical examination and supported by diagnostic studies.
- 5. Pericarditis, endocarditis, or myocarditis.
- 6. When cardiac enlargement or other evidence of cardiovascular abnormality is found, the decision is deferred to AMCD or RFS. If the applicant wishes further consideration, a consultation will be required "preferably" from the applicant's treating physician. It must include a narrative report of evaluation and be accompanied by an ECG with report and appropriate laboratory test results which may include, as appropriate, 24-hour Holter monitoring, thyroid function studies, ECHO, and an assessment of coronary artery status. The report and accompanying materials should be forwarded to the AMCD or RFS.
- 7. Anti-tachycardia devices or implantable defibrillators.
- 8. With the possible exceptions of aspirin and dipyridamole taken for their effect on blood platelets, the use of anticoagulants or other drugs for treatment or prophylaxis of fibrillation may preclude medical certification.
- 9. A history of cardioversion or drug treatment, *per se,* does not rule out certification. A current, complete cardiovascular evaluation will be required. A 3-month observation period must elapse after the procedure before consideration for certification.
- 10. Any other cardiac disorder not otherwise covered in this section.
- 11. For all classes, certification decisions will be based on the applicant's medical history and current clinical findings. Certification is unlikely unless the information is highly favorable to the applicant. Evidence of extensive multi-vessel disease, impaired cardiac functioning, precarious coronary circulation, etc., will preclude certification. Before an applicant undergoes coronary angiography, it is recommended that all records and the report of a current cardiovascular evaluation, including a maximal electrocardiographic exercise stress test, be submitted to the FAA for preliminary review. Based upon this information, it may be possible to advise an applicant of the likelihood of favorable consideration.

12. A history of low blood pressure requires elaboration. If the Examiner is in doubt, it is usually better to defer issuance rather than to deny certification for such a history.

ITEM 37. VASCULAR SYSTEM

CHECK EACH ITEM IN APPROPRIATE COLUMN	Normal	Abnormal
37. Vascular System		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

- (b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds -
 - (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges;
- (c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds-
 - (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

- 1. Inspection. Observe and report any thoracic deformity (e.g., pectus excavatum), signs of surgery or other trauma, and clues to ventricular hypertrophy. Check the hematopoietic and vascular system by observing for pallor, edema, varicosities, stasis ulcers, venous distention, nail beds for capillary pulsation, and color.
- 2. Palpation. Check for thrills and the vascular system for arteriosclerotic changes, shunts or AV anastomoses. The pulses should be examined to determine their character, to note if they are diminished or absent, and to observe for synchronicity.

- 3. Percussion, N/A.
- 4. Auscultation. Check for bruits and thrills.

III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITIONS	CLASS	EVALUATION DATA	DISPOSITION
	Vaso	cular Conditions	
Aneurysm (Abdominal or Thoracic)	All	Submit all available medical documentation	Requires FAA Decision
Aneurysm (Status Post Repair)	All	Submit all documentation in accordance with CVE Protocol, and include a GXT	Requires FAA Decision
Arteriosclerotic Vascular disease with evidence of circulatory obstruction	All	Submit all documentation in accordance with CVE Protocol, and include a GXT, and CAD US if applicable	Requires FAA Decision
Buerger's Disease	All	Document history and findings	If no impairment and no symptoms in flight - Issue Otherwise - Requires FAA Decision

LAST UPDATE: November 1, 2004

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
	Vaso	cular Conditions	
Peripheral Edema	All	The underlying medical condition must not be disqualifying	If findings can be explained by normal physiologic response or secondary to medication(s) - Issue
			Otherwise - Requires FAA Decision
Raynaud's Disease	All	Document history and findings	If no impairment - Issue
			Otherwise - Requires FAA Decision
Phlebothrombosis or Thrombophlebitis	1 st & 2nd	See Thrombophlebitis Protocol	Requires FAA Decision
	3rd	Document history and findings	A single episode resolved, not currently treated with anticoagulants, and a negative evaluation - Issue
		See Thrombophlebitis Protocol	If history of multiple episodes - Requires FAA Decision

ITEM 38. ABDOMEN AND VISCERA

CHECK EACH ITEM IN APPROPRIATE COLUMN	Normal	Abnormal
38. Abdomen and viscera (including hernia)		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

- (b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds-
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.
- (c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

1. Observation: The Examiner should note any unusual shape or contour, skin color, moisture, temperature, and presence of scars. Hernias, hemorrhoids, and fissure should be noted and recorded.

A history of acute gastrointestinal disorders is usually not disqualifying once recovery is achieved, e.g., acute appendicitis.

Many chronic gastrointestinal diseases may preclude issuance of a medical certificate (e.g., cirrhosis, chronic hepatitis, malignancy, ulcerative colitis). Colostomy following surgery for cancer may be allowed by the FAA with special followup reports.

LAST UPDATE: November 1, 2004

The Examiner should not issue a medical certificate if the applicant has a recent history of bleeding ulcers or hemorrhagic colitis. Otherwise, ulcers must not have been active within the past 3 months.

In the case of a history of bowel obstruction, a report on the cause and present status of the condition must be obtained from the treating physician.

2. Palpation: The Examiner should check for and note enlargement of organs, unexplained masses, tenderness, guarding, and rigidity.

III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION		
Abdo	Abdomen and Viscera and Anus Conditions				
Cholelithiasis	All	Document history and findings	If asymptomatic - Issue Otherwise - Requires FAA Decision		
Cirrhosis (Alcoholic)	All	See Substance Abuse/Dependence Disposition in Item 47, page 119	Requires FAA Decision		
Cirrhosis (Non-Alcoholic)	All	Submit all pertinent medical records, current status report, to include history of encephalopathy; PT/PTT; albumin; liver enzymes; bilirubin; CBC; and other testing deemed necessary	Requires FAA Decision		
Hepatitis	All	Submit all pertinent medical records, current status report to include any other testing deemed necessary	If disease is resolved without sequela - Issue Otherwise - Requires FAA Decision		
Hepatitis C	All	Submit all pertinent medical information and current status report, include duration of symptoms, name and dosage of drugs and side effects	Initial Special Issuance - Requires FAA Decision Followup Special Issuance's - See AASI Protocol		

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION		
Abdo	Abdomen and Viscera and Anus Conditions				
Inguinal, Ventral or Hiatal Hernia	All	Document history and findings	If symptomatic; likely to cause any degree of obstruction - Requires FAA Decision Otherwise - Issue		
Liver Transplant	All	Submit all pertinent medical information and current status report, include duration of symptoms, name and dosage of drugs and side effects	Requires FAA decision		
Splenomegaly	All	Provide hematologic workup	Requires FAA Decision		
	N	<i>l</i> lalignancies			
Colitis (Ulcerative, Regional Enteritis or Crohn's disease)	All	Submit all pertinent medical information and current status report, include duration of symptoms, name and dosage of drugs and side effects	Initial Special Issuance - Requires FAA Decision Followup Special Issuance's - See AASI Protocol		
Colon/Rectal Cancer	All	Submit all pertinent medical records, operative/ pathology reports, current oncological status report; and current CEA and CBC	Initial Special Issuance - Requires FAA Decision Followup Special Issuance's - See AASI Protocol		

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Malignancies				
Other Malignancies	All	Submit all pertinent medical records, operative/ pathology reports, current oncological status report, including tumor markers, and any other testing deemed necessary	Requires FAA Decision	
Peptic Ulcer	All	See Peptic Ulcer Protocol	Requires FAA Decision	

An applicant with an ileostomy or colostomy may also receive FAA consideration. A report is necessary to confirm that the applicant has fully recovered from the surgery and is completely asymptomatic.

In the case of a history of bowel obstruction, a report on the cause and present status of the condition must be obtained from the treating physician.

ITEM 39. ANUS

CHECK EACH ITEM IN APPROPRIATE COLUMN	Normal	Abnormal
39 Anus (Not including digital examination)		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(a), 67.213(b)(c), and 67.313(b)(c)

- (b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

- (c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

- 1. Digital Rectal Examination: This examination is performed only at the applicant's option unless indicated by specific history or physical findings. When performed, the following should be noted and recorded in Item 59 of FAA Form 8500-8.
- 2. If the digital rectal examination is not performed, the response to Item 39 may be based on direct observation or history.

ITEM 40. SKIN

CHECK EACH ITEM IN APPROPRIATE COLUMN	NORMAL	ABNORMAL
40. Skin		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

- (b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds-
 - (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.
- (c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds-
 - (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

A careful examination of the skin may reveal underlying systemic disorders of clinical importance. For example, thyroid disease may produce changes in the skin and fingernails. Cushing's disease may produce abdominal striae, and abnormal pigmentation of the skin occurs with Addison's disease.

Needle marks that suggest drug abuse should be noted and body marks and scars should be described and correlated with known history. Further history should be obtained as needed to explain findings.

III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION		
Cutaneous					
Dermatomyositis; Deep Mycotic Infections; Eruptive Xanthomas; Hansen's Disease; Lupus Erythematosus; Raynaud's Phenomenon; Sarcoid; or Scleroderma	All	Submit all pertinent medical information and current status report	Requires FAA Decision		
Kaposi's Sarcoma	All	Submit all pertinent medical information and current status report. See HIV Protocol	Requires FAA Decision		
	Malignant Melanoma				
Melanoma Breslow Level >.75 mm with/ without any metastasis	All	Submit all pertinent medical records, operative/ pathology reports, and current oncological status report, and current MRI of the brain	Requires FAA Decision		

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Malignant Melanoma				
Melanoma of Unknown Primary Origin	All	Submit all pertinent medical records, operative/ pathology reports, and current oncological status report, current MRI of the brain; PET scan if no primary	Requires FAA Decision	
Neurofibromatosis with Central Nervous System Involvement	All	Submit all pertinent medical information and current status medical report	Requires FAA Decision	
	Urtic	carial Eruptions		
Angioneurotic Edema	All	Submit all pertinent medical records and a current status report to include treatment	Requires FAA Decision	
Chronic Urticaria	All	Submit all records and a current status report to include treatment	Requires FAA Decision	

ITEM 41. G-U SYSTEM

CHECK EACH ITEM IN APPROPRIATE COLUMN	NORMAL	ABNORMAL
41. G-U system (Not including pelvic		
examination)		

NOTE: The pelvic examination is performed only at the applicant's option or if indicated by specific history or physical findings. If a pelvic examination is performed, the results are to be recorded in Item 60 of FAA Form 8500-8.

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

- (b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds -
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.
- (c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds-
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

The Examiner should observe for discharge, inflammation, skin lesions, scars, strictures, tumors, and secondary sexual characteristics. Palpation for masses and areas of tenderness should be performed. The pelvic examination is performed only at the applicant's option or if indicated by specific history or physical findings. If a pelvic examination is performed, the results are to be recorded in Item 60 of FAA Form 8500-8. Disorders such as sterility and menstrual irregularity are not usually of importance in qualification for medical certification. Specialty evaluations may be indicated by history or by physical findings on the routine examination. A personal history of urinary symptoms is important; such as:

- 1. Pain or burning upon urination
- 2. Dribbling or Incontinence
- 3. Polyuria, frequency, or nocturia
- 4. Hematuria, pyuria, or glycosuria

Special procedures for evaluation of the G-U system should best be left to the discretion of an urologist, nephrologist, or gynecologist.

III. Aerospace Medical Disposition

(See Item 48, page 122, for details concerning diabetes and Item 57, page 147, for other information related to the examination of urine).

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
General Disorders			
Congenital lesions of the kidney	All	Submit all pertinent medical information and status report	If the applicant has an ectopic, horseshoe kidney, unilateral agenesis, hypoplastic, or dysplastic and is asymptomatic — Issue
			Otherwise – Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
General Disorders				
Cystostomy and Neurogenic bladder	All	Requires evaluation, report must include etiology, clinical manifestation and treatment plan	Requires FAA Decision	
Renal Dialysis	All	Submit a current status report, all pertinent medical reports to include etiology, clinical manifestation, BUN, Ca, PO ⁴ , Creatinine, electrolytes, and treatment plan	Requires FAA Decision	
Renal Transplant	All	See Renal Transplant Protocol	Requires FAA Decision	
	Inflamm	atory Conditions		
Acute (Nephritis)	All	Submit all pertinent medical information and status report	If > 3 mos. ago, resolved, no sequela, or indication of reoccurrence - Issue Otherwise - Requires	
			FAA Decision	
Chronic (Nephritis)	All	Submit all pertinent medical information and status report	Requires FAA Decision	
Nephrosis	All	Submit all pertinent medical information and status report	Requires FAA Decision	

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION		
	Neoplastic Disorders				
Bladder	All	Submit a current status report, all pertinent medical reports to include staging, metastatic work up, and operative report if applicable	Requires FAA Decision		
Other Neoplastic Disorders	All	Submit a current status report, all pertinent medical reports to include staging, metastatic work up, and operative report if applicable	Requires FAA Decision		
Prostatic Carcinoma	All	Submit a current status report, all pertinent medical reports to include staging, PSA, metastatic workup, and operative report, if applicable, and treatment	Initial Special Issuance - Requires FAA Decision Followup Special Issuance's - See AASI Protocol		
Renal	All	Submit a current status report, all pertinent medical reports, include staging, metastatic workup, & operative report if applicable	Requires FAA Decision		

DISEASE/CONDITION **CLASS EVALUATION DATA** DISPOSITION **Nephritis** Polycystic Kidney ΑII If renal function is Submit all pertinent medical information Disease normal and no and status report hypertension - Issue Otherwise - Requires FAA Decision If asymptomatic ΑII Submit all pertinent Pyelitis or **Pyelonephritis** medical information - Issue and status report Otherwise - Requires **FAA Decision** Requires FAA Decision **Pyonephrosis** ΑII Submit all pertinent medical information and status report **Urinary System** ΑII Submit all pertinent Requires FAA Decision Hydronephrosis with impaired renal function medical information and status report Nephrectomy All Submit all pertinent If the remaining kidney (non-neoplastic) medical information function and anatomy and status report is normal, without other systemic disease, hypertension, uremia, infection of the remaining kidney -Issue Otherwise - Requires **FAA Decision** ΑII Submit all pertinent If calculus is not in Nephrocalcinosis collecting system or medical information and status report renal pelvis - Issue Otherwise - Requires **FAA Decision**

DISEASE/CONDITION **CLASS EVALUATION DATA DISPOSITION Urinary System** Calculus 11 ΑII Submit current If there is no residual metabolic evaluation calculi and the Renal - Single episode and status report metabolic workup is negative - Issue Otherwise - Requires **FAA Decision** Renal - Multiple ΑII Submit current **Initial Special** episodes or Retained metabolic evaluation **Issuance** - Requires Stones **FAA Decision** and status report **Followup** Special Issuance's -See AASI Protocol Ureteral or Vesical ΑII Single episode and If metabolic workup is negative and there is no retained calculi, submit current no sequela or retained calculi - Issue metabolic evaluation and status report (Ureteral stent is acceptable if functioning without Otherwise - Requires **FAA Decision** sequela)

A history of recent or significant hematuria requires further evaluation.

GENITAL/REPRODUCTIVE SYSTEM

Pregnancy under normal circumstances is not disqualifying. It is recommended that the applicant's obstetrician be made aware of all aviation activities so that the obstetrician can properly advise the applicant. The Examiner may wish to counsel applicants concerning piloting aircraft during the third trimester. The proper use of lap belt and shoulder harness warrants discussion.

¹¹ Complete studies to determine the possible etiology and prognosis are essential to favorable FAA consideration. Determining factors include site and location of the stones, complications such as compromise in renal function, repeated bouts of kidney infection, and need for therapy. Any underlying disease will be considered. The likelihood of sudden incapacitating symptoms is of primary concern. Report of imaging studies (KUB, IVP, or spiral CT) must be submitted in order to conclude that there are no residual or retained calculi.

Use of Oral or Repository Contraceptives or Hormonal Replacement Therapy are not disqualifying for medical certification. If the applicant is experiencing no adverse symptoms or reactions to cyclic hormones and is otherwise qualified, the Examiner may issue the desired certificate.

Gender dysphoria and gender reassignment are not disqualifying, however, a complete review of the medical history and records is indicated to determine that there is no medical, psychiatric, or psychological condition that is considered disqualifying. Medical disqualification is considered appropriate during the time of hormonal manipulation until such time where there is a stabilization of the dose administered and the physiologic response. Defer and submit a current status report and all pertinent medical reports to AMCD or RFS.

ITEMS 42-43. MUSCULOSKELETAL

CHECK EACH ITEM IN APPROPRIATE COLUMN	NORMAL	ABNORMAL
42. Upper and lower extremities (Strength and range of		
motion)		
43. Spine, other musculoskeletal		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113 (b)(c), 67.213 (b)(c), and 67.313 (b)(c)

- (b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved finds -
 - (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.
- (c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -
 - (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

Standard examination procedures should be used to make a gross evaluation of the integrity of the applicant's musculoskeletal system. The Examiner should note:

- 1. Pain neuralgia, myalgia, paresthesia, and related circulatory and neurological findings
- 2. Weakness local or generalized; degree and amount of functional loss
- 3. Paralysis atrophy, contractures, and related dysfunctions
- 4. Motion coordination, tremors, loss or restriction of joint motions, and performance degradation
- 5. Deformity extent and cause
- 6. Amputation level, stump healing, and phantom pain
- 7. Prostheses comfort and ability to use effectively

III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

ITEM 42. UPPER AND LOWER EXTREMITIES

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Upper and Lower Extremities				
Amputations	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	If applicant has a SODA issued on the basis of the amputation - Issue Otherwise - Requires FAA Decision After review of all medical data, the FAA may authorize a special medical flight test	
Atrophy of any muscles that is progressive, Deformities, either congenital or acquired, or Limitation of motion of a major joint, that are sufficient to interfere with the performance of airman duties	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medication with side effects, and all pertinent medical reports	Requires FAA Decision	

DISEASE/CONDITION CLASS **EVALUATION DATA** DISPOSITION **Upper and Lower Extremities** Submit a current Neuralgia or Neuropathy, ΑII Requires FAA Decision status report to chronic or acute. include functional particularly sciatica, if status (degree of sufficient to interfere impairment as with function or is likely measured by to become strength, range of incapacitating motion, pain), medications with side effects and all pertinent medical reports Osteomyelitis, acute or ΑII Submit a current Requires FAA Decision chronic, with or without status report to draining fistula(e) include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports Submit a current Tremors, if sufficient to ΑII Requires FAA Decision status report to interfere with the include functional performance of airman status (degree of duties¹² impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports

¹² Essential tremor is not disqualifying unless it is disabling.

For all the above conditions: If the applicant is otherwise qualified, the FAA may issue a limited certificate. This certificate will permit the applicant to proceed with flight training until ready for a MFT. At that time, at the applicant's request, the FAA (usually the AMCD) will authorize the student pilot to take a MFT in conjunction with the regular flight test. The MFT and regular private pilot flight test are conducted by an FAA inspector. This affords the student an opportunity to demonstrate the ability to control the aircraft despite the handicap. The FAA inspector prepares a written report and indicates whether there is a safety problem. A medical certificate and SODA, without the student limitation, may be provided to the inspector for issuance to the applicant, or the inspector may be required to send the report to the FAA medical officer who authorized the test.

When prostheses are used or additional control devices are installed in an aircraft to assist the amputee, those found qualified by special certification procedures will have their certificates limited to require that the devices (and, if necessary, even the specific aircraft) must always be used when exercising the privileges of the airman certificate.

Item 43. SPINE, OTHER MUSCULOSKELETAL

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
		Arthritis	
Osteoarthritis ¹³	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent	If mild and controlled with small doses of nonprescription agents - Issue If symptomatic or requires medication - Requires FAA Decision
		medical reports	

taken is not in itself disabling and the applicant has been on therapy (NSAID) long enough to have established that the medication is well tolerated and has not produced adverse side effects, the Examiner may issue a certificate.

¹³ Arthritis (if it is symptomatic or requires medication, other than small doses of nonprescription anti-inflammatory agents), is disqualifying unless the applicant holds a letter from the FAA specifically authorizing the Examiner to issue the certificate when the applicant is found otherwise qualified. Although the use of many medications on a continuing basis ordinarily contraindicates the performance of pilot duties, under certain circumstances, certification is possible for an applicant who is taking aspirin, ibuprofen, naproxen, similar nonsteroidal anti-inflammatory drugs (NSAID), or COX-2 inhibitors. If the applicant presents evidence documenting that the underlying condition for which the medicine is being

DISEASE/CONDITION CLASS **EVALUATION DATA DISPOSITION** Arthritis Rheumatoid Arthritis ΑII Initial Special Submit a current **Issuance** - Requires and Variants status report to **FAA Decision** include functional status (degree of impairment as **Followup** Special Issuance's measured by strength, range of See AASI Protocol motion, pain), medications with side effects and all pertinent medical reports **Collagen Disease** Acute Polymyositis; ΑII Submit a current Requires FAA Decision Dermatomyositis; status report to Lupus Erythematosus; or include functional Periarteritis Nodosa status, frequency and severity of episodes, organ systems effected, medications with side effects and all pertinent medical reports

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION		
	Spine, other musculoskeletal				
Active disease of bones and joints	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	Requires FAA Decision		
Ankylosis, curvature, or other marked deformity of the spinal column sufficient to interfere with the performance of airman duties	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	Requires FAA Decision		

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Spine, other musculoskeletal				
Intervertebral Disc Surgery	All	See Footnote ¹⁴	See Footnote ¹⁴	
Musculoskeletal effects of: Cerebral Palsy, Muscular Dystrophy Myasthenia Gravis, or Myopathies	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	Requires FAA Decision	
Other disturbances of musculoskeletal function, acquired or congenital, sufficient to interfere with the performance of airman duties or likely to progress to that degree	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	Requires FAA Decision	

¹⁴A history of intervertebral disc surgery is not disqualifying. If the applicant is asymptomatic, has completely recovered from surgery, is taking no medication, and has suffered no neurological deficit, the Examiner should confirm these facts in a brief statement in Item 60. The Examiner may then issue any class of medical certificate, providing that the individual meets all the medical standards for that class.

The paraplegic whose paralysis is not the result of a progressive disease process is considered in much the same manner as an amputee. The Examiner should defer issuance and may advise the applicant to request further FAA consideration. The applicant may be authorized to take a MFT along with the private pilot certificate flight test. If successful, the limitation VALID FOR STUDENT PILOT PURPOSES ONLY is removed from the medical certificate, but operational limitations may be added. A statement of demonstrated ability is issued.

Other neuromuscular conditions are covered in more detail in Item 46, page 101.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Spine, other musculoskeletal			
Symptomatic herniation of intervertebral disc	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	Requires FAA Decision

ITEM 44. IDENTIFYING BODY MARKS, SCARS, TATTOOS

CHECK EACH ITEM IN APPROPRIATE COLUMN	NORMAL	ABNORMAL
44. Identifying body marks, scars, tattoos (Size and location)		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(b), 67.213(b), and 67.313(b)

- (b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition finds-
 - (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges

II. Examination Techniques

A careful examination for surgical and other scars should be made, and those that are significant (the result of surgery or that could be useful as identifying marks) should be described. Tattoos should be recorded because they may be useful for identification.

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III. Aerospace Medical Disposition

The Examiner should question the applicant about any surgical scars that have not been previously addressed, and document the findings in Item 60 of FAA Form 8500-8. Medical certificates must not be issued to applicants with medical conditions that require deferral without consulting the AMCD or RFS. Medical documentation must be submitted for any condition in order to support an issuance of a medical certificate.

Disqualifying Condition: Scar tissue that involves the loss of function, which may interfere with the safe performance of airman duties.

ITEM 45. LYMPHATICS

CHECK EACH ITEM IN APPROPRIATE COLUMN	NORMAL	ABNORMAL
45. Lymphatics		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

- (b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds -
 - (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.
 - (c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -
 - (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

A careful examination of the lymphatic system may reveal underlying systemic disorders of clinical importance. Further history should be obtained as needed to explain findings.

III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Hodgkin's Disease – Lymphoma			
Hodgkin's Disease - Lymphoma	All	Submit a current status report and all pertinent medical reports. Include past and present treatment(s).	Initial Special Issuance - Requires FAA Decision Followup Special Issuance's - See AASI Protocol
Leukemia, Acute and Chronic			
Leukemia, Acute and Chronic – All Types	All	Submit a current status report and all pertinent medical reports	Requires FAA Decision
Chronic Lymphocytic Leukemia	All	Submit a current status report and all pertinent medical reports	Initial Special Issuance - Requires FAA Decision Followup Special Issuance's - See AASI Protocol

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DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Lymphatics			
Adenopathy secondary to Systemic Disease or Metastasis	All	Submit a current status report and all pertinent medical reports	Requires FAA Decision
Lymphedema	All	Submit a current status report and all pertinent medical reports. Note if there are any motion restrictions of the involved extremity	Requires FAA Decision
Lymphosarcoma	All	Submit a current status report and all pertinent medical reports. Include past and present treatment(s).	Requires FAA Decision

ITEM 46. NEUROLOGIC

CHECK EACH ITEM IN APPROPRIATE COLUMN	NORMAL	ABNORMAL
46. NEUROLOGIC		

I. Code of Federal Regulations

All Classes: 14 CFR 67.109 (a)(b), 67.209 (a)(b), and 67.309 (a)(b)

- (a) No established medical history or clinical diagnosis of any of the following:
 - (1) Epilepsy
 - (2) A disturbance of consciousness without satisfactory medical explanation of the cause; or
 - (3) A transient loss of control of nervous system function(s) without satisfactory medical explanation of the cause;
- (b) No other seizure disorder, disturbance of consciousness, or neurologic condition that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds-

- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

A neurologic evaluation should consist of a thorough review of the applicant's history prior to the neurological examination. The Examiner should specifically inquire concerning a history of weakness or paralysis, disturbance of sensation, loss of coordination, or loss of bowel or bladder control. Certain laboratory studies, such as scans and imaging procedures of the head or spine, electroencephalograms, or spinal paracentesis may suggest significant medical history. The Examiner should note conditions identified in Item 60 on the application with facts, such as dates, frequency, and severity of occurrence.

A history of simple headaches without sequela is not disqualifying. Some require only temporary disqualification during periods when the headaches are likely to occur or require treatment. Other types of headaches may preclude certification by the Examiner and require special evaluation and consideration (e.g., migraine and cluster headaches).

One or two episodes of dizziness or even fainting may not be disqualifying. For example, dizziness upon suddenly arising when ill is not a true dysfunction. Likewise, the orthostatic faint associated with moderate anemia is no threat to aviation safety as long as the individual is temporarily disqualified until the anemia is corrected.

An unexplained disturbance of consciousness is disqualifying under the medical standards. Because a disturbance of consciousness may be expected to be totally incapacitating, individuals with such histories pose a high risk to safety and must be denied or deferred by the Examiner. If the cause of the disturbance is explained and a loss of consciousness is not likely to recur, then medical certification may be possible.

The basic neurological examination consists of an examination of the 12 cranial nerves, motor strength, superficial reflexes, deep tendon reflexes, sensation, coordination, mental status, and includes the Babinski reflex and Romberg sign. The Examiner should be aware of any asymmetry in responses because this may be evidence of mild or early abnormalities. The Examiner should evaluate the visual field by direct confrontation or, preferably, by one of the perimetry procedures, especially if there is a suggestion of neurological deficiency.

III. Aerospace Medical Disposition

A history or the presence of any neurological condition or disease that potentially may incapacitate an individual should be regarded as initially disqualifying. Issuance of a medical certificate to an applicant in such cases should be denied or defer, pending further evaluation. A convalescence period following illness or injury may be advisable to permit adequate stabilization of an individual's condition and to reduce the risk of an adverse event. Applications from individuals with potentially disqualifying conditions should be forwarded to the AMCD. Processing such applications can be expedited by including hospital records, consultation reports, and appropriate laboratory and imaging studies, if available. Symptoms or disturbances that are secondary to the underlying condition and that may be acutely incapacitating include pain, weakness, vertigo or in coordination, seizures or a disturbance of consciousness, visual disturbance, or mental confusion. Chronic conditions may be incompatible with safety in aircraft operation because of long-term unpredictability, severe neurologic deficit, or psychological impairment.

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION CLASS **EVALUATION DATA DISPOSITION** Cerebrovascular Disease (including the brain stem) 15 Cerebral Thrombosis: ΑII Submit all pertinent Requires FAA Decision medical records, current neurologic report, to include Intracerebral or CHD Protocol, Brain Subarachnoid MRI, Bilat Carotid Hemorrhage US, name and dosage of Transient Ischemic medication(s) and side effects Attack (TIA); All Intracranial Aneurysm Submit all pertinent Requires FAA Decision or Arteriovenous medical records. Malformation current neurologic report, name and dosage of medication(s) and side effects

¹⁵ Complete neurological evaluations supplemented with appropriate laboratory and imaging studies are required of applicants with the above conditions. Cerebral arteriography may be necessary for review in cases of subarachnoid hemorrhage.

DISEASE/CONDITION CLASS **EVALUATION DATA DISPOSITION Cerebrovascular Disease** (including the brain stem) Intracranial Tumor¹⁶ Submit all pertinent Requires FAA Decision ΑII medical records, current neurologic report, name and dosage of medication(s) and side effects Submit all pertinent Requires FAA Decision Pseudotumor Cerebri ΑII (benign intracranial medical records. hypertension) current neurologic report, name and dosage of medication(s) and side effects

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¹⁶ A variety of intracranial tumors, both malignant and benign, are capable of causing incapacitation directly by neurologic deficit or indirectly through recurrent symptomatology. Potential neurologic deficits include weakness, loss of sensation, ataxia, visual deficit, or mental impairment. Recurrent symptomatology may interfere with flight performance through mechanisms such as seizure, headaches, vertigo, visual disturbances, or confusion. A history or diagnosis of an intracranial tumor necessitates a complete neurological evaluation with appropriate laboratory and imaging studies before a determination of eligibility for medical certification can be established. An applicant with a history of benign supratentorial tumors may be considered favorably for medical certification by the FAA and returned to flying status after a minimum satisfactory convalescence of 1 year.

DISEASE/CONDITION CLASS **EVALUATION DATA DISPOSITION Demyelinating Disease**¹⁷ Acute Optic Neuritis; ΑII Requires FAA Decision Submit all pertinent medical records, current neurologic Allergic report, to comment Encephalomyelitis; on involvement and persisting deficit, period of stability Landry-Guillain-Barre without symptoms, Syndrome; name and dosage of medication(s) and side effects Myasthenia Gravis; or Multiple Sclerosis

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¹⁷Factors used in determining eligibility will include the medical history, neurological involvement and persisting deficit, period of stability without symptoms, type and dosage of medications used, and general health. A neurological and/or general medical consultation will be necessary in most instances.

DISEASE/CONDITION CLASS **EVALUATION DATA DISPOSITION** Extrapyramidal, Hereditary, and Degenerative Diseases of the Nervous System¹⁸ Requires FAA Decision Dystonia Musculorum ΑII Obtain medical Deformans; records and current Huntington's Disease; neurological status, Parkinson's Disease; complete neurological evaluation with Wilson's Disease; or appropriate laboratory and Gilles de la Tourette imaging studies, as Syndrome; indicated Alzheimer's Disease: May consider Neuro-Dementia (unspecified); psychological testing or Slow viral diseases i.e., Creutzfeldt -Jakob's Disease

¹⁸ Extrapyramidal, Hereditary, and Degenerative Diseases of the Nervous System: Considerable variability exists in the severity of involvement, rate of progression, and treatment of the above conditions. A complete neurological evaluation with appropriate laboratory and imaging studies, including information regarding the specific neurological condition, will be necessary for determination of eligibility for medical certification.

DISEASE/CONDITION CLASS EVALUATION DATA DISPOSITION Headaches¹⁹ Atypical Facial Pain Submit all pertinent Requires FAA Decision ΑII medical records, current neurologic report, to include name and dosage of medication(s) and side effects Chronic Tension or Submit all pertinent Requires FAA Decision ΑII Cluster Headaches medical records. current neurologic report, to include characteristics, frequency, severity, associated with neurologic phenomena, name and dosage of medication(s) and side effects

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¹⁹ Pain, in some conditions, may be acutely incapacitating. Chronic recurring headaches or pain syndromes often require medication for relief or prophylaxis, and, in most instances, the use of such medications are disqualifying because they may interfere with a pilot's alertness and functioning. The Examiner may issue a medical certificate to an applicant with a long-standing history of headaches if mild, seldom requiring more than simple analgesics, occur infrequently, are not incapacitating, and are not associated with neurological stigmata.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Migraines	All	Submit all pertinent	Initial Special
iviigraii100	7 (11	medical records,	Issuance - Requires
		current neurologic	FAA Decision
		report, to include	
		characteristics,	Followup
		frequency, severity,	Special Issuance's -
		associated with	See AASI Protocol
		neurologic	
		phenomena, and	
		name and dosage of	
		medication(s) and	
		side effects	
Post-traumatic Headache	All	Submit all pertinent	Requires FAA Decision
		medical records,	
		current neurologic	
		report, name and	
		dosage of	
		medication(s) and	
		side effects	
	Hydrocep	ohalus and Shunts	
Hydrocephalus,	All	Submit all pertinent	Requires FAA Decision
secondary to a known		medical records,	
injury or disease		current neurologic	
process; or normal		report, to include	
pressure		name and dosage of	
		medication(s) and	
		side effects	
In		f the Nervous System	
Brain Abscess;	All	Complete	Requires FAA Decision
		neurological	
		evaluation with	
		appropriate	
Encephalitis;		laboratory and	
		imaging studies	
Meningitis; and			
Neurosyphilis			
radiodyprinid		1	

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Neurologic Conditions				
A disturbance of consciousness without satisfactory medical explanation of the cause	All	Submit all pertinent medical records, current neurologic report, to include name and dosage of medication(s) and side effects	Requires FAA Decision	
Epilepsy ²⁰	All	Submit all pertinent medical records, current status report, to include name and dosage of medication(s) and side effects	Requires FAA Decision	
Febrile Seizure ²¹ (Single episode)	All	Submit all pertinent medical records and a current status report	If occurred prior to age 5, without recurrence and off medications for 3 years - Issue Otherwise – Requires FAA Decision	
Transient loss of nervous system function(s) without satisfactory medical explanation of the cause; e.g., transient global amnesia	All	Submit all pertinent medical records, current status report, to include name and dosage of medication(s) and side effects	Requires FAA Decision	

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²⁰ Unexplained syncope, single seizure. An applicant who has a history of epilepsy, a disturbance of consciousness without satisfactory medical explanation of the cause, or a transient loss of control of nervous system function(s) without satisfactory medical explanation of the cause must be denied or deferred by the Examiner.

²¹ Infrequently, the FAA has granted an Authorization under the special issuance section of part 67 (14 CFR 67.401) when a seizure disorder was present in childhood but the individual has been seizure-free for a number of years. Factors that would be considered in determining eligibility in such cases would be age at onset, nature and frequency of seizures, precipitating causes, and duration of stability without medication. Followup evaluations are usually necessary to confirm continued stability of an individual's condition if an Authorization is granted under the special issuance section of part 67 (14 CFR 67.401).

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Other Conditions			
Trigeminal Neuralgia	All	Submit all pertinent medical records, current neurologic report, name and dosage of medication(s) and side effects	Requires FAA Decision
Presence of any neurological condition or disease that potentially may incapacitate an individual			
Head Trauma associated with: Epidural or Subdural Hematoma;	All	Submit all pertinent medical records, current status report, to include prehospital and emergency	Requires FAA Decision
Focal Neurologic Deficit; Depressed Skull Fracture; or Unconsciousness or disorientation of more than 1 hour following injury		department records, operative reports, neurosurgical evaluation, name and dosage of medication(s) and side effects	

DISEASE/CONDITION CLASS **EVALUATION DATA DISPOSITION** Spasticity, Weakness, or Paralysis of the Extremities Conditions that are Submit all pertinent Requires FAA Decision ΑII stable and nonmedical records, progressive may current neurologic report, to include be considered for medical certification etiology, degree of involvement, period of stability, appropriate laboratory and imaging studies Vertigo or Disequilibrium²² ΑII Submit all pertinent Requires FAA Decision Alternobaric Vertigo; medical records, Hyperventilation current neurologic Syndrome; report, name and dosage of medication(s) and Meniere's Disease and side effects **Acute Peripheral** Vestibulopathy; Nonfunctioning Labyrinths; or Orthostatic Hypotension

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²² Numerous conditions may affect equilibrium, resulting in acute incapacitation or varying degrees of chronic recurring spatial disorientation. Prophylactic use of medications also may cause recurring spatial disorientation and affect pilot performance. In most instances, further neurological evaluation will be required to determine eligibility for medical certification.

ITEM 47. PSYCHIATRIC

CHECK EACH ITEM IN APPROPRIATE COLUMN	NORMAL	ABNORMAL
47. Psychiatric (Appearance, behavior, mood, communication, and		
memory)		

I. Code of Federal Regulations

All Classes: 14 CFR 67.107(a)(b)(c), 67.207(a)(b)(c), and 67.307(a)(b)(c)

- (a) No established medical history or clinical diagnosis of any of the following:
 - (1) A personality disorder that is severe enough to have repeatedly manifested itself by overt acts.
 - (2) A psychosis. As used in this section, "psychosis" refers to a mental disorder in which:
 - (i) The individual has manifested delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of this condition; or
 - (ii) The individual may reasonably be expected to manifest delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of this condition.
 - (3) A bipolar disorder.
 - (4) Substance dependence, except where there is established clinical evidence, satisfactory to the Federal Air Surgeon, of recovery, including sustained total abstinence from the substance(s) for not less than the preceding 2 years. As used in this section-
 - (i) "Substance" includes: alcohol; other sedatives and hypnotics; anxiolytics; opioids; central nervous system stimulants such as cocaine, amphetamines, and similarly acting sympathomimetics; hallucinogens; phencyclidine or similarly acting arylcyclohexylamines; cannabis; inhalants; and other psychoactive drugs and chemicals; and
 - (ii) "Substance dependence" means a condition in which a person is dependent on a substance, other than tobacco or ordinary xanthine-containing (e.g., caffeine) beverages, as evidenced by-

- (A) Increased tolerance
- (B) Manifestation of withdrawal symptoms;
- (C) Impaired control of use; or
- (D) Continued use despite damage to physical health or impairment of social, personal, or occupational functioning.
- (b) No substance abuse within the preceding 2 years defined as:
 - (1) Use of a substance in a situation in which that use was physically hazardous, if there has been at any other time an instance of the use of a substance also in a situation in which that use was physically hazardous;
 - (2) A verified positive drug test result acquired under an anti-drug program or internal program of the U.S. Department of Transportation or any other Administration within the U.S. Department of Transportation; or
 - (3) Misuse of a substance that the Federal Air Surgeon, based on case history and appropriate, qualified medical judgment relating to the substance involved, finds-
 - (i) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (ii) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.
- (c) No other personality disorder, neurosis, or other mental condition that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds-
 - (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(Also see Items 18.m., n., and p., page 32).

II. Examination Techniques

The FAA does not expect the Examiner to perform a formal psychiatric examination.

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However, the Examiner should form a general impression of the emotional stability and mental state of the applicant. There is a need for discretion in the Examiner/applicant relationship consonant with the FAA's aviation safety mission and the concerns of all applicants regarding disclosure to a public agency of sensitive information that may not be pertinent to aviation safety. Examiners must be sensitive to this need while, at the same time, collect what is necessary for a certification decision. When a question arises, the Federal Air Surgeon encourages Examiners first to check this *Guide for Aviation Medical Examiners* and other FAA informational documents. If the question remains unresolved, the Examiner should seek advice from a RFS or the Manager of the AMCD.

Review of the applicant's history as provided on the application form may alert the Examiner to gather further important factual information. Information about the applicant may be found in items related to age, pilot time, and class of certificate for which applied. Information about the present occupation and employer also may be helpful. If any psychotropic drugs are or have been used, followup questions are appropriate. Previous medical denials or aircraft accidents may be related to psychiatric problems.

Psychiatric information can be derived from the individual items in medical history (Item 18; page 32). Any affirmative answers to Item 18.m., "Mental disorders of any sort; depression, anxiety, etc.," or Item 18.p., "Suicide attempt," are significant. Any disclosure of current or previous alcohol or drug problems requires further clarification. A record of traffic violations may reflect certain personality problems or indicate an alcohol problem. Affirmative answers related to rejection by military service or a military medical discharge require elaboration. Reporting symptoms such as headaches or dizziness, or even heart or stomach trouble, may reflect a history of anxiety rather than a primary medical problem in these areas. Sometimes, the information applicants give about their previous diagnoses is incorrect, either because the applicant is unsure of the correct information or because the applicant chooses to minimize past difficulties. If there was a hospital admission for any emotionally related problem, it will be necessary to obtain the entire record.

Valuable information can be derived from the casual conversation that occurs during the physical examination. Some of this conversation will reveal information about the family, the job, and special interests. Even some personal troubles may be revealed at this time. The Examiner's questions should not be stilted or follow a regular pattern; instead, they should be a natural extension of the Examiner's curiosity about the person being examined. Information about the motivation for medical certification and interest in flying may be revealing. A formal Mental Status Examination is unnecessary. For example, it is not necessary to ask about time, place, or person to discover whether the applicant is oriented. Information about the flow of associations, mood, and memory, is generally available from the usual interactions during the examination. Indication of cognitive problems may become apparent during the examination. Such problems with concentration, attention, or confusion during the examination or slower, vague responses should be noted and may be cause for deferral.

The Examiner should make observations about the following specific elements and should note on the form any gross or notable deviations from normal:

- 1. Appearance (abnormal if dirty, disheveled, odoriferous, or unkempt);
- 2. Behavior (abnormal if uncooperative, bizarre, or inexplicable);
- 3. Mood (abnormal if excessively angry, sad, euphoric, or labile);
- 4. Communication (abnormal if incomprehensible, does not answer questions directly);
- 5. Memory (abnormal if unable to recall recent events); and
- 6. Cognition (abnormal if unable to engage in abstract thought, or if delusional or hallucinating).

The Examiner, upon identifying any significant problems, should defer issuance of the medical certificate and report findings to the FAA. This could be accomplished by contacting a RFS or the Manager of the AMCD.

III. Aerospace Medical Disposition

A. General Considerations. It must be pointed out that considerations for safety, which in the "mental" area are related to a compromise of judgment and emotional control or to diminished mental capacity with loss of behavioral control, are not the same as concerns for emotional health in everyday life. Some problems may have only a slight impact on an individual's overall capacities and the quality of life but may nevertheless have a great impact on safety. Conversely, many emotional problems that are of therapeutic and clinical concern have no impact on safety.

B. Denials. The FAA has concluded that certain psychiatric conditions are such that their presence or a past history of their presence is sufficient to suggest a significant potential threat to safety. It is, therefore, incumbent upon the Examiner to be aware of any indications of these conditions currently, or in the past, and to deny or defer issuance of the medical certificate to an applicant who has a history of these conditions. An applicant who has a current diagnosis or history of these conditions (listed below) may request the FAA to grant an Authorization under the special issuance section of part 67 (14 CFR 67.401) and, based upon individual considerations, the FAA may grant such an issuance.

NOTE: The use of a psychotropic drug is disqualifying for aeromedical certification purposes. This includes all sedatives, tranquilizers, antipsychotic drugs, antidepressant drugs (including SSRI's), analeptics, anxiolytics, and hallucinogens. The Examiner should defer issuance and forward the medical records to the AMCD.

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSTION	
Psychiatric Conditions				
Adjustment Disorders	All	Submit all pertinent medical information and clinical status report	If stable, resolved, no associated disturbance of thought, no recurrent episodes, and psychotropic medication(s) used for less than 6 months and discontinued for at least 3 months - Issue Otherwise - Requires FAA Decision	
Attention Deficit Disorder	All	Submit all pertinent medical information and clinical status report to include documenting the period of use, name and dosage of any medication(s) and side-effects	Requires FAA Decision	

DISEASE/CONDITION **CLASS EVALUATION DATA DISPOSTION Psychiatric Conditions** Bipolar Disorder ΑII See III. B-3 below Requires FAA Decision ΑII Bereavement: Submit all pertinent If stable, resolved, no medical information associated disturbance and clinical status of thought, no recurrent Dysthmic; or report episodes, and; a). psychotropic Minor Depression medication(s) used for less than 6 months and discontinued for at least 3 months – Issue b). No use of psychotropic medication(s) - Issue Otherwise - Requires **FAA Decision Personality Disorders** See III. B-1 below Requires FAA Decision ΑII Requires FAA Decision **Psychosis** ΑII See III. B-2 below If medication(s) **Pyschotropic** ΑII Document period of medications for use, name and discontinued for at least dosage of 30 days and w/o side-Smoking Cessation medication(s) and effects - Issue side-effects Otherwise – Requires **FAA Decision** Substance Abuse See III. B-6 below Requires FAA Decision ΑII Requires FAA Decision Substance ΑII See III.B-5 below Dependence Suicide Attempt ΑII Submit all pertinent Requires FAA Decision medical information required

1. The category of personality disorders severe enough to have repeatedly manifested itself by overt acts refers to diagnosed personality disorders that involve what is called "acting out" behavior. These personality problems relate to poor social judgment, impulsivity, and disregard or antagonism toward authority, especially rules and regulations. A history of long-standing behavioral problems, whether major (criminal) or relatively minor (truancy, military misbehavior, petty criminal and civil indiscretions, and social instability), usually occurs with these

disorders. Driving infractions and previous failures to follow aviation regulations are critical examples of these acts.

Certain personality disorders and other mental disorders that include conditions of limited duration and/or widely varying severity may be disqualifying. Under this category, the FAA is especially concerned with significant depressive episodes requiring treatment, even outpatient therapy. If these episodes have been severe enough to cause some disruption of vocational or educational activity, or if they have required medication or involved suicidal ideation, the application should be deferred or denied issuance.

Some personality disorders and situational dysphorias may be considered disqualifying for a limited time. These include such conditions as gross immaturity and some personality disorders not involving or manifested by overt acts.

- 2. The category of psychosis includes schizophrenia and some bipolar and major depression, as well as some other rarer conditions. In addition, some conditions such as schizotypal and borderline personality disorders that include psychotic symptoms at some time in their course may also be disqualifying.
- 3. A bipolar disorder may not reach the level of psychosis but can be so disruptive of judgment and functioning (especially mania) so as to interfere with aviation safety. All applicants with such a diagnosis must be denied or deferred. However, a number of these applicants, so diagnosed, may be favorably considered for an Authorization when the symptoms do not constitute a threat to safe aviation operations.
- 4. Although they may be rare in occurrence, severe anxiety problems, especially anxiety and phobias associated with some aspect of flying, are considered significant. Organic mental disorders that cause a cognitive defect, even if the applicant is not psychotic, are considered disqualifying whether they are due to trauma, toxic exposure, or arteriosclerotic or other degenerative changes.

(See Item 18.m., page 32).

5. Substance dependence refers to the use of substances of dependence, which include alcohol and other drugs (i.e., PCP, sedatives and hypnotics, anxiolytics, marijuana, cocaine, opioids, amphetamines, hallucinogens, and other psychoactive drugs or chemicals). Substance dependence is defined and specified as a disqualifying medical condition. It is disqualifying unless there is clinical evidence, satisfactory to the Federal Air Surgeon, of recovery, including sustained total abstinence from the substance for not less than the preceding 2 years.

Substance dependence is evidenced by one or more of the following: increased tolerance, manifestation of withdrawal symptoms, impaired control of use, or continued use despite damage to physical health or impairment of social, personal, or occupational functioning. Substance dependence is accompanied by various deleterious effects on physical health as well as personal or social functioning. There are many other indicators of substance dependence in the history and physical examination. Treatment for substance dependence-related problems, arrests, including charges of driving under the influence of drugs or alcohol, and vocational or marital disruption related to drugs or alcohol consumption are important indicators. Alcohol on the breath at the time of a routine physical examination should arouse a high index of suspicion. Consumption of drugs or alcohol sufficient to cause liver damage is an indication of the presence of alcoholism.

- 6. Substance abuse includes the use of the above substances under any one of the following conditions:
 - a. Use of a substance in the last 2 years in which the use was physically hazardous (e.g., DUI or DWI) if there has been at any other time an instance of the use of a substance also in a situation in which the use was physically hazardous;
 - b. If a person has received a verified positive drug test result under an anti-drug program of the Department of Transportation or one of its administrations; or
 - c. The Federal Air Surgeon finds that an applicant's misuse of a substance makes him or her unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held, or that may reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the applicant unable to perform those duties or exercise those privileges.

Substance dependence and substance abuse are specified as disqualifying medical conditions.

ITEM 48. GENERAL SYSTEMIC

CHECK EACH ITEM IN APPROPRIATE COLUMN	NORMAL	ABNORMAL
48. General Systemic		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(a)(b)(c), 67.213(a)(b)(c), and 67.313(a)(b)(c)

- (a) No established medical history or clinical diagnosis of diabetes mellitus that requires insulin or any other hypoglycemic drug for control.
- (b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds -
 - (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.
- (c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds-
 - (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

A protocol for examinations applicable to Item 48 (see page 122), is not provided because the necessary history-taking, observation, and other examination techniques used in examining other systems have already revealed much of what can be known about the status of the applicant's endocrine and other systems. For example, the examination of the skin alone can reveal important signs of thyroid dysfunction, Addison's disease, Cushing's disease, and several other endocrine disorders. The eye may reflect a thyroid disorder (exophthalmos) or diabetes (retinopathy).

When the Examiner reaches Item 48 (see page 122), in the course of the examination of an applicant, it is recommended that the Examiner take a moment to review and determine if key procedures have been performed in conjunction with examinations

made under other items, and to determine the relevance of any positive or abnormal findings.

III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Blood and Blood-Forming Tissue Disease				
Anemia	All	Submit a current status report and all pertinent medical reports. Include a CBC, and any other tests deemed necessary	Requires FAA Decision	
Hemophilia	All	Submit a current status report and all pertinent medical reports. Include frequency, severity and location of bleeding sites	Requires FAA Decision	
Other disease of the blood or blood-forming tissues that could adversely affect performance of airman duties	All	Submit a current status report and all pertinent medical reports	Requires FAA Decision	
Polycythemia	All	Submit a current status report and all pertinent medical reports; include CBC	Requires FAA Decision	

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DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
		Diabetes	
Diabetes Insipidus	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects	Requires FAA Decision
Diabetes Mellitus Diet Controlled	All	See Diabetes Mellitus Controlled by Diet and Exercise Protocol	If no glycosuria and normal Hgba1c - Issue
Diabetes Mellitus I requiring Insulin	1 st & 2nd	Not currently granting Special Issuance	Requires FAA Decision
	3rd	See Diabetes Mellitus I Protocol	Requires FAA Decision
Diabetes Mellitus II requiring Oral Medication	All	See Diabetes Mellitus II Protocol	Initial Special Issuance - Requires FAA Decision
			Followup Special Issuance's - See AASI Protocol Requires FAA Decision
	Endo	crine Disorders	
Acromegaly	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects	Requires FAA Decision
Addison's Disease	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects	Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Endocrine Disorders			
Cushing's Disease or Syndrome	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects	Requires FAA Decision
Hypoglycemia, whether functional or a result of pancreatic tumor	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects	Requires FAA Decision
Hyperparathyroidism	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects, and current serum calcium and phosphorus levels	If status post-surgery, disease controlled, stable and no sequela - Issue Otherwise - Requires FAA Decision
Hypoparathyroidism	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects and current serum calcium and phosphorus levels	Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Endocrine Disorders				
Hyperthyroidism	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects and current TFTs	Initial Special Issuance - Requires FAA Decision Followup Special Issuance's - See AASI Protocol	
Hypothyroidism ²³	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects and current TFTs	Initial Special Issuance - Requires FAA Decision Followup Special Issuance's - See AASI Protocol	
Proteinuria & Glycosuria	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects	Trace or 1+ protein and glucose intolerance ruled out - Issue Otherwise - Requires FAA Decision	
Human Immunodeficiency Virus (HIV)				
Acquired Immunodeficiency Syndrome (AIDS)	All	See HIV Protocol	Requires FAA Decision	
Human Immunodeficiency Virus (HIV)	All	See HIV Protocol	Requires FAA Decision	

²³ The use of thyroid replacement therapy following diagnosis of either hyperthyroidism or hypothyroidism is not disqualifying if the applicant appears clinically euthyroid pending receipt of confirmatory laboratory tests.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
	Leukemia,	Acute and Chronic	
Leukemia, Acute and Chronic	All	Submit a current status report and all pertinent medical reports	Initial Special Issuance - Requires FAA Decision
		·	Followup Special Issuance's - See AASI Protocol

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CHAPTER 4

EXAMINATION TECHNIQUES AND CRITERIA FOR QUALIFICATION

ITEMS 49-64 of FAA Form 8500-8

This chapter provides guidance for the completion of Items 49-64 of FAA Form 8500-8. The Examiner is responsible for conducting the examination. However, he or she may delegate to a qualified physician's assistant, nurse, aide, or laboratory assistant the testing required for Items 49-58. Regardless of who performs the tests, the Examiner is responsible for the accuracy of the findings, and this responsibility **may not** be delegated.

After all routine evaluations and tests are completed, the Examiner should make a complete review of FAA Form 8500-8. If the form is complete and accurate, the Examiner should add final comments, make qualification decision statements, and sign the declaration. The medical history page of FAA Form 8500-8 must be completed in the handwriting of and signed and dated by the applicant. Upon completion of the physical examination, the entire FAA Form 8500-8, Items 1 through 64, **must** be electronically transmitted to the FAA.

ITEM 49. HEARING

49. Hearing	Record Audiometric Speech
	Discrimination Score Below
Conversational	
Voice Test at 6 Feet	
Pass Fail	

I. Code of Federal Regulations

All Classes: 14 CFR 67.105(a)(b)(c), 67.205(a)(b)(c), and 67.305(a)(b)(c)

- (a) The person shall demonstrate acceptable hearing by at least one of the following tests:
 - (1) Demonstrate an ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 6 feet from the examiner, with the back turned to the examiner.
 - (2) Demonstrate an acceptable understanding of speech as determined by audiometric speech discrimination testing to a score of at least 70 percent obtained in one ear or in a sound field environment.

(3) Provide acceptable results of pure tone audiometric testing of unaided hearing acuity according to the following table of worst acceptable thresholds, using the calibration standards of the American National Standards Institute, 1969 (11 West 42nd Street, New York, NY 10036):

Frequency (Hz)	500 Hz	1000 Hz	2000 Hz	3000 Hz
Better ear (Db)	35	30	30	40
Poorer ear (Db)	35	50	50	60

- (b) No disease or condition of the middle or internal ear, nose, oral cavity, pharynx, or larynx that-
 - (1) Interferes with, or is aggravated by, flying or may reasonably be expected to do so; or
 - (2) Interferes with, or may reasonably be expected to interfere with, clear and effective speech communication.
- (c) No disease or condition manifested by, or that may reasonably be expected to be manifested by, vertigo or a disturbance of equilibrium.

II. Examination Equipment and Techniques

A. Order of Examinations

- 1. The applicant must demonstrate an ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 6 feet from the Examiner, with the back turned to the Examiner.
- 2. If an applicant fails the conversational voice test, the Examiner may administer pure tone audiometric testing of unaided hearing acuity according to the following table of worst acceptable thresholds, using the calibration standards of the American National Standards Institute, 1969:

Frequency (Hz)	500 Hz	1000 Hz	2000 Hz	3000 Hz
Better ear (Db)	35	30	30	40
Poorer ear (Db)	35	50	50	60

If the applicant fails an audiometric test and the conversational voice test had not been administered, the conversational voice test should be performed to determine if the standard applicable to that test can be met.

3. If an applicant is unable to pass either the conversational voice test or the pure tone audiometric test, then an audiometric speech discrimination test should be

administered. A passing score is at least 70 percent obtained in one ear at an intensity of no greater than 65 Db.

B. Discussion

- 1. Conversational voice test. For all classes of certification, the applicant must demonstrate hearing of an average conversational voice in a quiet room, using both ears, at 6 feet, with the back turned to the Examiner. The Examiner should not use only sibilants (S-sounding test materials). If the applicant is able to repeat correctly the test numbers or words, "pass" should be noted and recorded on FAA Form 8500-8, Item 49. If the applicant is unable to hear a normal conversational voice then "fail" should be marked and one of the following tests may be administered:
- 2. Standard. For all classes of certification, the applicant may be examined by pure tone audiometry as an alternative to conversational voice testing or upon failing the conversational voice test. If the applicant fails the pure tone audiometric test and has not been tested by conversational voice, that test may be administered. The requirements expressed as audiometric standards according to a table of acceptable thresholds (American National Standards Institute [ANSI], 1969, calibration) are as follows:

EAR(All classes of medical certification)				
Frequency (Hz) 500 Hz 1000 Hz 2000 Hz 3000 Hz				3000 Hz
Better ear (Db)	35	30	30	40
Poorer ear (Db)	35	50	50	60

3. Audiometric Speech Discrimination. Upon failing both conversational voice and pure tone audiometric test, an audiometric speech discrimination test should be administered (usually by an otologist or audiologist). The applicant must score at least 70 percent at an intensity no greater than 65 Db in either ear.

C. Equipment

- 1. Approval. The FAA does not approve or designate specific audiometric equipment for use in medical certification. Equipment used for FAA testing must accurately and reliably cover the required frequencies and have adequate threshold step features. Because every audiometer manufactured in the United States for screening and diagnostic purposes is built to meet appropriate standards, most audiometers should be acceptable *if they are maintained in proper calibration* and are used in an adequately quiet place.
- 2. Calibration. It is critical that any audiometer be periodically calibrated to ensure its continued accuracy. Annual calibration is recommended. Also recommended is the further safeguard of obtaining an occasional audiogram on a "known" subject or staff member between calibrations, especially at any time that a test result unexpectedly varies significantly from the hearing levels clinically expected. This

testing provides an approximate "at threshold" calibration. The Examiner should ensure that the audiometer is calibrated to ANSI standards or if calibrated to the older ASA/USASI standards, the appropriate correction is applied (see paragraph 3 below).

3. ASA/ANSI. Older audiometers were often calibrated to meet the standards specified by the USA Standards Institute (USASI), formerly the American Standards Association (ASA). These standards were based upon a U.S. Public Health Service survey. Newer audiometers are calibrated so that the zero hearing threshold level is now based on laboratory measurements rather than on the survey. In 1969, the American National Standards Institute (ANSI) incorporated these new measurements. Audiometers built to this standard have instruments or dials that read in ANSI values. For these reasons, it is very important that every audiogram submitted (for values reported in Item 49 on FAA Form 8500-8) include a note indicating whether it is ASA or ANSI. Only then can the FAA standards be appropriately applied. ASA or USASI values can be converted to ANSI by adding corrections as follows:

Frequency (Hz) 500 Hz 1,000 Hz 2,000 Hz 3,000 Hz Decibels Added* 14 10 8.5 8.5

III. Aerospace Medical Disposition

- 1. Special Issuance of Medical Certificates. Applicants who do not meet the auditory standards may be found eligible for a Statement of Demonstrated Ability (SODA). An applicant seeking a SODA must make the request in writing to the Aerospace Medicine Certification Division, AAM-300. A determination of qualifications will be made on the basis of a special medical examination by an ENT consultant, a MFT, or operational experience.
- 2. Bilateral Deafness. If otherwise qualified, the AMCD may issue a combination medical/student pilot certificate with the limitation VALID FOR STUDENT PILOT PURPOSES ONLY as well as the limitation NOT VALID FOR CONTROL ZONES OR AREAS WHERE RADIO COMMUNICATION IS REQUIRED. This will enable the applicant to proceed with training to the point of a private pilot checkride. See Items 25-30, page 39.

When the student pilot's instructor confirms the student's eligibility for a private pilot checkride, the applicant should submit a written request to the AMCD, for an authorization for a MFT. This test will be given by an FAA inspector in conjunction with the checkride. If the applicant successfully completes the test, the FAA will issue a third-class medical certificate and SODA. Pilot activities will be restricted to areas in which radio communication is not required.

^{*}The decibels added figure is the amount added to ASA or USASI at each specific frequency to convert to ANSI or older equivalent ISO values.

3. Hearing Aids. If the applicant meets the standard with the use of hearing aids, the certificate may be issued with the following restriction:

VALID ONLY WITH USE OF HEARING AMPLIFICATION

Some pilots who normally wear hearing aids to assist in communicating while on the ground report that they elect not to wear them while flying. They prefer to use the volume amplification of the radio headphone. Some use the headphone on one ear for radio communication and the hearing aid in the other for cockpit communications.

ITEMS 50-54. OPHTHALMOLOGIC DISORDER

ITEM 50. DISTANT VISION

50. Distant Vision		
Right	20/	Corrected to 20/
Left	20/	Corrected to 20/
Both	20/	Corrected to 20/

I. Code of Federal Regulations

First- and Second-Classes: 14 CFR 67.103(a) and 67.203(a)

(a) Distant visual acuity of 20/20 or better in each eye separately, with or without corrective lenses. If corrective lenses (spectacles or contact lenses) are necessary for 20/20 vision, the person may be eligible only on the condition that corrective lenses are worn while exercising the privileges of an airman certificate

Third-Class: 14 CFR 67.303(a)

(a) Distant visual acuity of 20/40 or better in each eye separately, with or without corrective lenses. If corrective lenses (spectacles or contact lenses) are necessary for 20/40 vision, the person may be eligible only on the condition that corrective lenses are worn while exercising the privileges of an airman certificate.

II. Examination Equipment and Techniques

- 1. Each eye will be tested separately, and both eyes together.
- 2. Snellen 20-foot eye chart may be used as follows:
- a. The Snellen chart should be illuminated by a 100-watt incandescent lamp placed 4 feet in front of and slightly above the chart.

- b. The chart or screen should be placed 20 feet from the applicant's eyes and the 20/20 line should be placed 5 feet 4 inches above the floor.
- c. A metal, opaque plastic, or cardboard occluder should be used to cover the eye not being examined.
- d. The examining room should be darkened with the exception of the illuminated chart or screen.
- e. If the applicant wears corrective lenses, the uncorrected acuity should be determined first, then corrected acuity. If the applicant wears contact lenses, see the recommendations in Chapter 3. Items 31-34, Eye, Section II, #5, (See page 49).

f. Common errors:

- 1. Failure to shield the applicant's eyes from extraneous light.
- 2. Permitting the applicant to view the chart with both eyes.
- 3. Failure to observe the applicant's face to detect squinting.
- 4. Incorrect sizing of projected chart letters for a 20-foot distance.
- 5. Failure to focus the projector sharply.
- 6. Failure to obtain the corrected acuity when the applicant wears glasses.
- 7. Failure to note and to require the removal of contact lenses.
- 3. Directions furnished by the manufacturer or distributor should be followed when using substitute devices for the above testing.

<u>Acceptable Substitutes</u> for Distant Vision Testing: Projector with screen; Keystone Orthoscope; Bausch & Lomb Orthorator; AOC Site-Screener; Titmus Vision Tester; Keystone Telebinocular; OPTEC 2000 Vision Tester.

III. Aerospace Medical Disposition

A. When corrective lenses are required to meet the standards, an appropriate limitation will be placed on the medical certificate. For example, when lenses are needed for distant vision only:

HOLDER SHALL WEAR CORRECTIVE LENSES

For multiple vision defects involving distant and/or intermediate and/or near vision when one set of monofocal lenses corrects for all, the limitation is:

HOLDER SHALL WEAR CORRECTIVE LENSES

For combined defective distant and near visual acuity where multifocal lenses are required, the appropriate limitation is:

HOLDER SHALL WEAR LENSES THAT CORRECT FOR DISTANT VISION AND POSSESS GLASSES THAT CORRECT FOR NEAR VISION

For multiple vision defects involving distant, near, and intermediate visual acuity when more than one set of lenses is required to correct for all vision defects, the appropriate limitation is:

HOLDER SHALL WEAR LENSES THAT CORRECT FOR DISTANT VISION AND POSSESS GLASSES THAT CORRECT FOR NEAR AND INTERMEDIATE VISION

B. An applicant who fails to meet vision standards and has no SODA that covers the extent of the visual acuity defect found on examination may obtain further FAA consideration for grant of an Authorization under the special issuance section of part 67 (14 CFR 67.401) for medical certification by submitting a report of an eye evaluation. The Examiner can help to expedite the review procedure by forwarding a copy of FAA Form 8500-7, Report of Eye Evaluation, that has been completed by an eye specialist²⁴.

- C. Applicants who do not meet the visual standards should be referred to a specialist for evaluation. Applicants with visual acuity or ocular muscle balance problems may be referred to either an optometrist or an ophthalmologist of the applicant's choice. Applicants with eye disease (e.g., glaucoma) should be referred only to an ophthalmologist. The FAA Form 8500-7, Report of Eye Evaluation, should be provided to the specialist by the Examiner.
- D. Amblyopia. In amblyopia ex anopsia, the visual acuity of one eye is decreased without presence of organic eye disease, usually because of strabismus or anisometropia in childhood. In amblyopia ex anopsia, the visual acuity loss is simply recorded in Item 50 of FAA form 8500-8, and visual standards are applied as usual. If the standards are not met, a report of eye evaluation, FAA Form 8500-7, should be submitted for consideration.

Item 51.a. NEAR VISION

51.a. Near Vision		
Right	20/	Corrected to 20/
Left	20/	Corrected to 20/
Both	20/	Corrected to 20/

²⁴ In obtaining special eye evaluations in respect to the airman medical certification program or the air traffic controller health program, reports from either optometrists or ophthalmologists are acceptable when the condition being evaluated relates to a determination of visual acuity, refractive error, or mechanical function of the eye. FAA Form 8500-7, Report of Eye Evaluation, is a form that is designed for use by either optometrists or ophthalmologists. In those cases where individuals are being referred for treatment or diagnosis of a disease of the eye, evaluations should usually be conducted by ophthalmologists. Board certification is not considered essential.

Therefore, except under unusual circumstances, you should make no distinction between optometrists or ophthalmologists as a source of information regarding visual acuity, refractive error, or mechanical function of the eye when referring applicants or employees for eye evaluations. You may, however, specify that only reports from ophthalmologists will be accepted when referring an individual for treatment or diagnosis of eye disease.

Any applicant eligible for a medical certificate through special issuance under these guidelines shall pass a MFT, which may be arranged through the appropriate agency medical authority. While waiting to complete a MFT, an applicant who is otherwise qualified for certification may be issued a medical certificate, which must contain the limitation "Valid for Student Pilot Privileges Only."

ITEM 51.b. INTERMEDIATE VISION

51.b. Intermediate Vision – 32 Inches		
Right	20/	Corrected to 20/
Left	20/	Corrected to 20/
Both	20/	Corrected to 20/

I. Code of Federal Regulations

First- and Second-Classes: 14 CFR 67.103(b) and 67.203(b)

(b) Near vision of 20/40 or better, Snellen equivalent, at 16 inches in each eye separately, with or without corrective lenses. If age 50 or older, near vision of 20/40 or better, Snellen equivalent, at both 16 inches and 32 inches in each eye separately, with or without corrective lenses.

Third-Class: 14 CFR 67.303(b)

(b) Near vision of 20/40 or better, Snellen equivalent, at 16 inches in each eye separately, with or without corrective lenses.

II. Equipment and Examination Techniques

NEAR AT 16 INCHES	INTERMEDIATE AT
	32 INCHES
Near Vision Acuity Test Chart	Near Vision Acuity Test Chart
Dated April 1993	Dated April 1993
FAA Form 8500-1	FAA Form 8500-1
Acceptable substitutes:	Acceptable substitutes:
AOC Site-Screener	OPEC 2000 Vision Tester
Bausch & Lomb Orthorator	Titmus Vision Tester
Keystone Orthoscope	Titmus II Vision Tester
Keystone Telebinocular	(Model Nos. TII and TIIS)
OPTEC 2000 Vision Tester	Titmus 2 Vision Tester
Titmus Vision Tester	(Model Nos. T2A and T2S)
	Others as approved

1. Near visual acuity and intermediate visual acuity, if the latter is required, are determined for each eye separately and for both eyes together. Test values are recorded both with and without corrective glasses/lenses when either are worn or required to meet the standards. If the applicant is unable to meet the

intermediate acuity standard unaided, he or she then is tested using each of the corrective lenses or glasses otherwise needed by that person to meet distant and/or near visual acuity standards. If the aided acuity meets the standard using any of the lenses or glasses, the findings are recorded, and the certificate appropriately limited (see Appendix B). If an applicant has no lenses that bring intermediate and/or near visual acuity to the required standards, or better, in each eye, no certificate may be issued, and the applicant is referred to an eye specialist for appropriate visual evaluation and correction..

- 2. FAA Form 8500-1, Near Vision Acuity Test Chart, dated April 1993, should be used as follows:
- a. The examination is conducted in a well-lighted room with the source of light behind the applicant.
- b. The applicant holds the chart 16 inches (near) and 32 inches (intermediate) from the eyes in a position that will provide uniform illumination. To ensure that the chart is held at exactly 16 inches or 32 inches from the eyes, a string of that length may be attached to the chart.
- c. Each eye is tested separately, with the other eye covered. Both eyes are then tested together.
- d. The smallest type correctly read with each eye separately and both eyes together is recorded in linear value. In performing the test using FAA Form 8500-1, the level of visual acuity will be recorded as the line of smallest type the applicant reads accurately. The applicant should be allowed no more than two misread letters on any line.
 - e. Common errors:
 - 1. Inadequate illumination of the test chart.
 - 2. Failure to hold the chart the specified distance from the eye.
 - 3. Failure to ensure that the untested eye is covered.
 - 4. Failure to determine uncorrected and corrected acuity when the applicant wears glasses.
- f. Practical Test. At the bottom of FAA Form 8500-1 is a section for Aeronautical Chart Reading. Letter types and charts are reproduced from aeronautical charts in their actual size.

This may be used when a borderline condition exists at the certifiable limits of an applicant's vision. If successfully completed, a favorable certification action may be taken.

3. Acceptable substitute instruments may be used, following the directions accompanying the instruments.

III. Aerospace Medical Disposition

When correcting glasses are required to meet the near and intermediate vision standards, an appropriate limitation will be placed on the medical certificate. Contact lenses that correct only for near or intermediate visual acuity are not considered acceptable for aviation duties.

If the applicant meets the uncorrected near or intermediate vision standard of 20/40, but already uses spectacles that correct the vision better than 20/40, it is recommended that the Examiner enter the limitation for near or intermediate vision corrective glasses on the certificate.

For all classes, the appropriate wording for the near vision limitation is:

HOLDER SHALL POSSESS GLASSES THAT CORRECT FOR NEAR VISION

Possession only is required, because it may be hazardous to have distant vision obscured by the continuous wearing of reading glasses.

For first- and second-class, the appropriate wording for combined near and intermediate vision limitation is:

HOLDER SHALL POSSESS GLASSES THAT CORRECT FOR NEAR AND INTERMEDIATE VISION

For multiple defective distant, near, and intermediate visual acuity when unifocal glasses or contact lenses are used and correct all, the appropriate limitation is:

HOLDER SHALL WEAR CORRECTIVE LENSES

For multiple vision defects involving distance and/or near and/or intermediate visual acuity when more than one set of lenses is required to correct for all vision defects, the appropriate limitation is:

HOLDER SHALL WEAR LENSES THAT CORRECT FOR DISTANT VISION
AND POSSESS GLASSES THAT CORRECT FOR
NEAR AND INTERMEDIATE VISION

ITEM 52. COLOR VISION

52. Color V	ision			
	Pass			
	Fail			

I. Code of Federal Regulations

First- and Second-Classes: 14 CFR 67.103(c) and 67.203(c)

(c) Color vision: Ability to perceive those colors necessary for the safe performance of airman duties.

Third-Class: 14 CFR 67.303(c)

(c) Color vision: Ability to perceive those colors necessary for the safe performance of airman duties.

II. Examination Equipment and Techniques

EQUIPMENT	TEST	EDITION	PLATES
Pseudoisochromatic	Test book should be held 30"		
plates	from applicant		
	Plates should be illuminated by		
	at least 20' candles, preferably		
	by a Macbeth Easel Lamp or a		
	Verilux True Color Light		
	(F15T8VLX)		
	Only three seconds are allowed		
	for the applicant to interpret		
	and respond to a given plate		
American Optical		1965	1-15
Company [AOC]			
AOC-HRR		2 nd	1-11
Dvorine		2 nd	1-15
Ishihara		14 Plate	1-11
		24 Plate	1-15
		38 Plate	1-21
Richmond, 15-plates		1983	1-15

Acceptable Substitutes: The procedures for the Farnsworth Lantern or OPTEC 900 Color Vision Test; Keystone Orthoscope; Keystone Telebinocular; LKC Technologies, Inc., APT-5 Color Vision Tester; OPTEC 2000 Vision Tester (Model Nos. 2000PM, 2000PAME, and 2000PI); Titmus Vision Tester; Titmus II Vision Tester (Model Nos. TII and TIIS); and the Titmus 2 Vision Tester (Model Nos. T2A and T2S) accompany the instructions.

III. Aerospace Medical Disposition

An applicant does not meet the color vision standard if testing reveals:

A. All Classes

- 1. Seven or more errors on plates 1-15 of the AOC (1965 edition) pseudoisochromatic plates.
- 2. AOC-HRR (second edition): Any error in test plates 7-11. Because the first 4 plates in the test book are for demonstration only, test plate 7 is actually the eleventh plate in the book. (See instruction booklet.)
- 3. Seven or more errors on plates 1-15 of Dvorine pseudoisochromatic plates (second edition, 15 plates.)
- 4. Six or more errors on plates 1-11 of the concise 14-plate edition of the Ishihara pseudoisochromatic plates. Seven or more errors on plates 1-15 of the 24-plate edition of Ishihara pseudoisochromatic plates. Nine or more errors on plates 1-21 of the 38-plate edition of Ishihara pseudoisochromatic plates.
- 5. Seven or more errors on plates 1-15 of the Richmond (1983 edition) pseudoisochromatic plates.
- 6. Farnsworth Lantern test: An average of more than one error per series of nine color pairs in series 2 and 3. (See instruction booklet.)
- 7. Any errors in the six plates of the Titmus Vision Tester, the Titmus II Vision Tester, the Titmus 2 Vision Tester, the OPTEC 2000 Vision Tester, the OPTEC 900 Vision Tester the Keystone Orthoscope, or Keystone Telebinocular.
- 8. LKC Technologies, Inc., APT-5 Color Vision Tester. The letter must be correctly identified in at least two of the three presentations of each test condition. (See APT-5 screening chart for FAA-related testing in instruction booklet.)

B. Certificate Limitation.

If an applicant fails to meet the color vision standard as interpreted above but is otherwise qualified, the Examiner may issue a medical certificate bearing the limitation:

NOT VALID FOR NIGHT FLYING OR BY COLOR SIGNAL CONTROL

C. Special Issuance of Medical Certificates.

An applicant who holds a medical certificate bearing a color vision limitation may request a signal light test. This request should be in writing and should be directed to the AMCD or RFS. If the applicant passes the signal light test, the FAA will issue a medical certificate without the color vision limitation and provide the applicant with a "letter of evidence." The signal light test may be given at any time during flight training.

- D. "Color Vision Correcting" Lens (e.g. X-Chrom). Such lens are unacceptable to the FAA as a means for correcting a pilot's color vision deficiencies.
- E. Yarn Test. Yarn tests are not acceptable methods of testing for the FAA medical certificate.

ITEM 53. FIELD OF VISION

53. Field of Vision	
Normal	Abnormal

I. Code of Federal Regulations

First- and Second-Classes: 14 CFR 67.103(d) and 67.203(d)

(d) Field of Vision: Normal

Third-Class: 14 CFR 67.303(d)

(d) Field of Vision: No acute or chronic pathological condition of either eye or adnexa that interferes with the proper function of an eye, that may reasonably be expected to progress to that degree, or that may reasonably be expected to be aggravated by flying.

II. Examination Equipment and Techniques

- 1. Fifty-inch square black matte surface wall target with center white fixation point; 2 millimeter white test object on black-handled holder:
 - a. The applicant should be seated 40 inches from the target.
 - b. An occluder should be placed over the applicant's right eye.
 - c. The applicant should be instructed to keep the left eye focused on the fixation point.
 - d. The white test object should be moved from the outside border of the wall target toward the point of fixation on each of the eight 4-degree radials.
 - e. The result should be recorded on a worksheet as the number of inches from the fixation point at which the applicant first identifies the white target on each radial.
 - f. The test should be repeated with the applicant's left eye occluded and the right eye focusing on the fixation point.

2. Alternative Techniques:

- a. A standard perimeter may be used in place of the above procedure. With this method, any significant deviation from normal field configuration will require evaluation by an ophthalmologist.
- b. Direct confrontation. This is the least acceptable alternative since this tests for peripheral vision and only grossly for field size and visual defects. The Examiner, standing in front of the applicant, has the applicant look at the Examiner's nose while advancing two moving fingers from slightly behind and to the side of the applicant in each of the four quadrants. Any significant deviation from normal requires ophthalmological evaluation.

III. Aerospace Medical Disposition

A. Ophthalmological Consultations.

If an applicant fails to identify the target in any presentation at a distance of less than 23 inches from the fixation point, an ophthalmologist's evaluation must be requested. This is a requirement for all classes of certification. The Examiner should provide FAA Form 8500-14, Ophthalmological Evaluation for Glaucoma, for use by the ophthalmologist if glaucoma is suspected.

B. Glaucoma.

The FAA may grant an Authorization under the special issuance section of part 67 (14 CFR 67.401) on an individual basis. The Examiner can facilitate FAA review by obtaining a report of Ophthalmological Evaluation for Glaucoma (FAA Form 8500-14) from a treating or evaluating ophthalmologist. (See Item 31).

NOTE: See AASI for History of Glaucoma.

If considerable disturbance in night vision is documented, the FAA may limit the medical certificate: NOT VALID FOR NIGHT FLYING

C. Other Pathological Conditions.

See Items 31-34, beginning on page 46.

ITEM 54. HETEROPHORIA

54. Heterophoria 20' (in prism diopters)	Esophoria	Exophoria	Right Hyperphoria	Left Hyperphoria

I. Code of Federal Regulations

First- and Second-Classes: 14 CFR 67.103(f) and 67.203(f)

(f) Bifoveal fixation and vergence-phoria relationship sufficient to prevent a break in fusion under conditions that may reasonably be expected to occur in performing airman duties. Tests for the factors named in this paragraph are not required except for persons found to have more than 1 prism diopter of hyperphoria, 6 prism diopters of esophoria, or 6 prism diopters of exophoria. If any of these values are exceeded, the Federal Air Surgeon may require the person to be examined by a qualified eye specialist to determine if there is bifoveal fixation and an adequate vergence-phoria relationship. However, if otherwise eligible, the person is issued a medical certificate pending the results of the examination.

Third-Class: No Standards

II. Examination Equipment and Techniques

A. Equipment

- 1. Red Maddox rod with handle.
- 2. Horizontal prism bar with graduated prisms beginning with one prism diopter and increasing in power to at least eight prism diopters.
- 3. Acceptable substitutes:

AOC Site-Screener	Maddox rod and individual prisms
Bausch & Lomb	Maddox rod and Risley rotary prism
Orthorator	OPTEC 2000 Vision Tester
Keystone Orthoscope	OPTEC 900 Vision Tester
Keystone Telebinocular	Titmus Vision Tester

B. Examination Techniques

Test procedures to be used accompany the instruments. If the Examiner needs specific instructions for use of the horizontal prism bar and red Maddox rod, these may be obtained from a RFS.

III. Aerospace Medical Disposition

- 1. First- and Second-class: If an applicant exceeds the heterophoria standards (1 prism diopter of hyperphoria, 6 prism diopters of esophoria, or 6 prism diopters of exophoria), but shows no evidence of diplopia or serious eye pathology and all other aspects of the examination are favorable, the Examiner should not withhold or deny the medical certificate. The applicant should be advised that the FAA may require further examination by a qualified eye specialist.
- 2. Third-class: Applicants for a third-class certificate are not required to undergo heterophoria testing. However, if an applicant has strabismus or a history of diplopia, the Examiner should defer issuance of a certificate and forward the application to the AMCD. If the applicant wishes further consideration, the Examiner can help expedite FAA review by providing the applicant with a copy of FAA Form 8500-7, Report of Eye Evaluation.

ITEM 55. BLOOD PRESSURE

55. Blood Pressure				
	Systolic	Diastolic		
(Sitting mm of Mercury)				

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

- (b). No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds-
 - (1). Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (2). May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.
- (c). No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved finds -
 - (1). Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (2). May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

Measurement of blood pressure is an essential part of the FAA medical certification examination. The average blood pressure while sitting should not exceed 155 mm mercury systolic and 95 mm mercury diastolic maximum pressure for all classes. A medical assessment is specified for all applicants who need or use antihypertensive medication to control blood pressure. (See B. below.)

II. Examination Techniques

In accordance with accepted clinical procedures, routine blood pressure should be taken with the applicant in the seated position. An applicant should not be denied or deferred first-, second-, or third-class certification unless subsequent recumbent blood pressure readings exceed those contained in this Guide. Any conditions that may adversely affect the validity of the blood pressure reading should be noted.

III. Aerospace Medical Disposition

A. Examining Options

- 1. An applicant whose pressures are within the above limits, who has not used antihypertensives for 30 days, and who is otherwise qualified should be issued a medical certificate by the Examiner.
- 2. An applicant whose blood pressure is slightly elevated beyond the FAA specified limits, may, at the Examiner's discretion, have a series of 3 daily readings over a 7-day period. If the indication of hypertension remains, even if it is mild or intermittent, the Examiner should defer certification and transmit the application to the AMCD with a note of explanation.

The Examiner must defer issuance of a medical certificate to any applicant whose hypertension has not been evaluated, who uses unacceptable medications, whose medical status is unclear, whose hypertension is uncontrolled, who manifests significant adverse effects of medication, or whose certification has previously been specifically reserved to the FAA.

B. Initial and Followup Evaluation for Hypertensives Under Treatment - See Hypertension Protocol

ITEM 56. PULSE

56. Pulse			
(Resting)			
-			

The medical standards do not specify pulse rates that, *per se*, are disqualifying for medical certification. These tests are used, however, to determine the status and responsiveness of the cardiovascular system. Abnormal pulse rates may be reason to conduct additional cardiovascular system evaluations.

II. Examination Techniques

The pulse rate is determined with the individual relaxed in a sitting position.

III. Aerospace Medical Disposition

If there is bradycardia, tachycardia, or arrhythmia, further evaluation is warranted and deferral may be indicated (see Item 36, page 63 for more details.) A cardiac evaluation may be needed to determine the applicant's qualifications. Temporary stresses or fever may, at times, result in abnormal pulse readings. If the Examiner believes this to be the case, the applicant should be given a few days to recover and then be retested. If this is not possible, the Examiner should defer issuance, pending further evaluation.

ITEM 57. URINALYSIS

57. Urinalysis (if abnormal, give results)					
			Albumin	Sugar	
	Normal	Abnormal			

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(a)(b), 67.213(a)(b), and 67.313(a)(b)

- (a) No established medical history or clinical diagnosis of diabetes mellitus that requires insulin or any other hypoglycemic drug for control.
- (b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds
 - (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

Any standard laboratory procedures are acceptable for these tests.

III. Aerospace Medical Disposition

Glycosuria or proteinuria is cause for deferral of medical certificate issuance until additional studies determine the status of the endocrine and/or urinary systems. If the glycosuria has been determined not to be due to carbohydrate intolerance, the Examiner may issue the certificate. Trace or 1+ proteinuria in the absence of a history of renal disease is not cause for denial.

The Examiner may request additional urinary tests when they are indicated by history or examination. These should be reported on FAA Form 8500-8 or attached to the form as an addendum.

ITEM 58. ECG

58. ECG (Date)				
ММ	DD	YYYY		

I. Code of Federal Regulations

First-Class: 14 CFR 67.111(b)(c)

- (b) A person applying for first-class medical certification must demonstrate an absence of myocardial infarction and other clinically significant abnormality on electrocardiographic examination:
 - (1) At the first application after reaching the 35th birthday; and
 - (2) On an annual basis after reaching the 40th birthday.
- (c) An ECG will satisfy a requirement of paragraph (b) of this section if it is dated no earlier than 60 days before the date of the application it is to accompany and was performed and transmitted according to acceptable standards and techniques.

Note: All applicants for certification may be required to provide ECG's when indicated by history or physical examination.

II. Examination Techniques

- A. Date. The date of the most recent ECG shall be entered in Item 58 of FAA Form 8500-8 for all first-class applicants.
 - 1. If a first-class applicant is due for a periodic ECG, the Examiner performs and transmits a current tracing according to established procedures. (See D. below).

However, some applicants (such as airline transport pilots who are employed by air carriers with medical departments) may have their company transmit a current ECG directly to the FAA. The Examiner need not require such an applicant to undergo another ECG examination and, if the applicant is otherwise qualified, a medical certificate may be issued. The Examiner should attach a statement to FAA Form 8500-8 to verify that a tracing has been transmitted from another source. The date of that ECG should be entered in Item 58.

2. If a first-class applicant is not required to have a periodic ECG with the current examination, the Examiner should record the date of the preceding ECG in Item 58.

- 3. If a second- or third-class applicant gives a history of having had an electrocardiogram, the test and date may be entered in Item 59. More importantly, the Examiner should indicate in Item 60 of FAA Form 8500-8 the history and its significance, if any.
- 4. If the applicant provides no statement and refuses to have a current ECG submitted by the Examiner, the Examiner should defer issuance of the medical certificate. When an ECG is due but is not submitted, the FAA will not affirm the applicant's eligibility for medical certification until the requested ECG has been received and interpreted as being within normal limits. Failure to respond to FAA requests for a required current ECG will result in denial of certification.

B. Currency

- 1. In order to meet regulatory requirements, a first-class applicant's periodic ECG must have been performed and transmitted within 60 days prior to the date of the first-class application (FAA Form 8500-8). The AMCD, verifies currency of all periodic ECG's.
- 2. There is no provision for issuance of a first-class medical certificate based upon a promise that an ECG will be obtained at a future date. In such circumstances, the Examiner should defer issuance and mail the completed FAA Form 8500-8 to the AMCD.

C. Interpretation

- 1. All ECG's required to establish eligibility for medical certification must be forwarded for interpretation to the Manager of the AMCD. This does not preclude submission of an interpretation by or through the Examiner.
- 2. Interpretation is accomplished by the staff and consultant cardiologists at the AMCD. Abnormalities are investigated to determine their significance, if any.
- D. Technique and Reporting Format for Required ECG's on First-class Applicants

The method for recording and transmitting ECG's is by digital electronic data transfer by the Examiner to the AMCD. Senior Examiners who perform first-class medical examinations are required to have access to this capability.

International Examiners who submit ECG's should use the following format for preparation and submission:

1. See FAA Form 8065-1, Appendix B, Instructions for Preparation and Submittal of Electrocardiogram. However, the FAA also will accept 3-channel or 12-channel strips uncut or mounted on standard mounting paper. The following steps are essential to expedite processing of these tracings:

- a. All leads must be properly identified.
- b. Applicant and Examiner identification must be complete and the tracing must be dated.
- 2. Such hard-copy ECG's are microfilmed for permanent retention in the AMCD. Only tracings that can be microfilmed are acceptable.
- 3. Provide a Resting tracing. Tracings must be stapled to the ECG report form to ensure that all leads are appropriately coded and interpreted.

ITEM 59. OTHER TESTS GIVEN

59. Other Tests Given

I. Code of Federal Regulations

All Classes: 14 CFR 67.413(a)(b)

- (a) Whenever the Administrator finds that additional medical information or history is necessary to determine whether an applicant for or the holder of a medical certificate meets the medical standards for it, the Administrator requests that person to furnish that information or to authorize any clinic, hospital, physician, or other person to release to the Administrator all available information or records concerning that history. If the applicant or holder fails to provide the requested medical information or history or to authorize the release so requested, the Administrator may suspend, modify, or revoke all medical certificates the airman holds or may, in the case of an applicant, deny the application for an airman medical certificate.
- (b) If an airman medical certificate is suspended or modified under paragraph (a) of this section, that suspension or modification remains in effect until the requested information, history, or authorization is provided to the FAA and until the Federal Air Surgeon determines whether the person meets the medical standards under this part.

II. Examination Techniques

Additional medical information may be furnished through additional history taking, further clinical examination procedures, and supplemental laboratory procedures.

On rare occasions, even surgical procedures such as biopsies may be indicated. As a designee of the FAA Administrator, the Examiner has limited authority to apply 14 CFR 67.413 in processing applications for medical certification. When an Examiner

determines that there is a need for additional medical information, based upon history and findings, the Examiner is authorized to request prior hospital and outpatient records and to request supplementary examinations including laboratory testing and examinations by appropriate medical specialists. The Examiner should discuss the need with the applicant. The applicant should be advised of the types of additional examinations required and the type of medical specialist to be consulted. Responsibility for ensuring that these examinations are forwarded and that any charges or fees are paid will rest with the applicant. All reports should be forwarded to the AMCD, unless otherwise directed (such as by a RFS.)

Whenever, in the Examiner's opinion, medical records are necessary to evaluate an applicant's medical fitness, the Examiner should request that the applicant sign an authorization for the Release of Medical Information (FAA Form 8500-21.) (See Appendix B.) The Examiner should forward this authorization to the custodian of the applicant's records so that the information contained in the record may be obtained for attachment to the report of medical examination.

ITEM 60. COMMENTS ON HISTORY AND FINDINGS

60. Comments on Hist and for abnormal find before mailing).	•	_				-	
Significant Medical History		Yes	No	Abnormal Physical Findings	Yes		No

Comments on all positive history or medical examination findings must be reported by **Item Number**. Item 60 provides the Examiner an opportunity to report observations and/or findings that are not asked for on the application form. Concern about the applicant's behavior, abnormal situations arising during the examination, unusual findings, unreported history, and other information thought germane to aviation safety should be reported in Item 60. The Examiner should record name, dosage, frequency, and purpose for all currently used medications.

If possible, all ancillary reports such as consultations, ECG's, x-ray release forms, and hospital or other treatment records should be attached. If the delay for those items would exceed 14 days, the Examiner should forward all available data to the AMCD, with a note specifying what additional information is being prepared for submission at a later date.

If there are no significant medical history items or abnormal physical findings, the Examiner should indicate this by checking the appropriate block.

ITEM 61. APPLICANT'S NAME

Item 61. Applicant's Name		

The applicant's name should be typed.

ITEM 62. HAS BEEN ISSUED

Item 62. Has Been Issued	Medical Certificate	Medical & Student Pilot Certificate
	No Medical Certificate Issued	Deferred for Further Evaluation
	Has Been Denied	Letter of Denial Issued (Copy Attached)

The Examiner must check the proper box to indicate if the Medical Certificate, FAA Form 8500-9 (white), or Medical Certificate and Student Pilot Certificate, FAA Form 8420-2 (yellow), has been issued. If neither form has been issued, the Examiner must indicate denial or deferral by checking one of the two lower boxes. If denied, a copy of the Examiner's letter of denial, should be forwarded to the AMCD.

- A. Applicant's Refusal. When advised by an Examiner that further examination and/or medical records are needed, the applicant may elect not to proceed. The Examiner should note this on FAA Form 8500-8. No certificate should be issued, and the Examiner should forward the application form to the AMCD, even if the application is incomplete.
- B. Anticipated Delay. When the Examiner anticipates a delay of more than 14 days in obtaining records or reports concerning additional examinations, the completed FAA Form 8500-8 should be transmitted to the AMCD with a note stating that additional information will follow. No medical certificate should be issued.
- C. Issuance. When the Examiner receives all the supplemental information requested and finds that the applicant meets all the FAA medical standards for the class sought, the Examiner should issue a medical certificate.
- D. Deferral. If upon receipt of the information the Examiner finds there is a need for even more information or there is uncertainty about the significance of the findings, certification should be deferred. The Examiner's concerns should be noted on FAA Form 8500-8 and the application transmitted to the AMCD for further consideration.

If the applicant decides at this point to abandon the application for a medical certificate, the Examiner should also note this on FAA Form 8500-8 and mail the incomplete form

to the AMCD. An incomplete FAA Form 8500-8 should not be transmitted to the AMCD for further consideration.

E. Denial. When the Examiner concludes that the applicant is clearly ineligible for certification, the applicant should be denied, using FAA Form 8500-2. (See Appendix B.) Use of this form will provide the applicant with the reason for the denial and with appeal rights and procedures. (See Chapter 1, Item 4, Medical Certification Decision Making and AME Assisted Special Issuance, page 4.)

ITEM 63. DISQUALIFYING DEFECTS

63. Disqualifying Defects (List by Item number)	

List all disqualifying defects, diagnoses, or conditions by **ITEM NUMBER** that serve as the basis for denial or deferral in Item 63. Comments or discussion of specific observations or findings may be reported in Item 60 or submitted on a separate sheet of paper.

If the Examiner denies the applicant, the Examiner must issue a <u>Letter of Denial</u>, to the applicant, and report the issuance of the denial in Item 60.

ITEM 64. MEDICAL EXAMINER'S DECLARATION

Item 64. Medical Examiner's Declaration - I hereby certify that I have personally reviewed the medical history and personally examined the applicant named on this medical examination report. This report with any attachment embodies my findings completely and correctly.								
Date of Examination Aviation Medical Examiner's Name			Aviation Medical Examiner's Signature					
мм	DD	YYYY	Street Address					
						AME Serial Number		
			City	State	Zip Code	AME Telephone Number ()		

If the application is not transmitted electronically, the date of examination and the Examiner's name and complete address must be typed. The Examiner must personally sign the completed form. The Examiner's serial number and telephone number should be entered in the blocks provided.

The FAA designates specific individuals as Examiners, and this status may not be further delegated to a physician who may be covering the designee's practice.

Although the FAA does not require that the Examiner sign the Examiner's copy of FAA Form 8500-8, the Examiner should at least personally initial this form.

AME Assisted Special Issuance (AASI)

The next 21 pages of the Guide for Aviation Medical Examiners introduce the AME Assisted Special Issuance (AASI) process.

If this is a first time issuance for a disqualifying disease/condition and the airman has all of the requisite medical information necessary for a determination, the Examiner must defer, and submit all of the documentation to the AMCD or contact the RFS.

The Guide refers to a number of selected medical conditions that are initially disqualifying and must be deferred to the AMCD or RFS. Following the granting of an Authorization for Special Issuance of a Medical Certificate (Authorization) by the AMCD or RFS's office. Each AASI has their own specialized clinical criteria, by which an Examiner may re-issue a medical certificate to an applicant with a medical history of an initially disqualifying condition, if otherwise qualified.

AASI FOR HISTORY OF ARTHRITIS

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- The type of arthritis
- A general assessment of condition and effect on daily activities
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects
- Comments regarding range of motion of neck, upper and lower extremities, hands, etc.

The Examiner should defer to AMCD or Region if:

- The applicant has developed any associated systemic manifestations
- If new joints become involved
- If the applicant is placed on medication(s) other than those acceptable medications listed below

ARTHRITIS MEDICATIONS

REQUIRES DEFERRAL	MAY BE USED
Plaquenil	Aspirin
Oral Chemotherapy - type medications	Similar nonsteroidal anti-inflammatory drugs (NSAID), Ibuprofen, Naproxen
Methotrexate, steroids >20mg of Prednisone equivalent daily, or Gold Therapy	

AASI FOR HISTORY OF ASTHMA

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- The applicant's current medical status that addresses frequency of attacks and whether the attacks have resulted in emergency room visits or hospitalizations
- The Examiner should caution the applicant to cease flying with any exacerbation as warned in §61.53
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects
- Results of Pulmonary Function Testing (PFT), if deemed necessary, performed within last 90 days

The Examiner should defer to the AMCD or Region if:

- The symptoms worsen
- There has been an increase in frequency of emergency room, hospital, or outpatient visits
- The FEV1 is less than 70% predicted value
- The applicant requires 3 or more medications for stabilization

 The applicant is using steroids in dosages equivalent to more than 20mg of Prednisone per day 						

AASI FOR HISTORY OF ATRIAL FIBRILLATION

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A summary of the applicant's medical condition since the last FAA medical examination, including a statement regarding any further episodes of atrial fibrillation
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects
- A report of a current 24-hour Holter Monitor performed within last 90 days

The Examiner should defer to the AMCD or Region if:

- There is a recurrent episode of atrial fibrillation
- The applicant develops chronic atrial fibrillation
- The applicant is placed on anticoagulation therapy

AASI FOR HISTORY OF CHRONIC LYMPHOCYTIC LEUKEMIA

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A clinical followup report from the treating physician that includes an update of the condition of the applicant since the last examination
- The results of any applicable laboratory results, including a complete blood count performed within last 90 days

The Examiner should defer to the AMCD or Region if:

- The condition currently requires treatment with a chemotherapeutic agent
- The white blood cell count has risen above 80,000

AASI FOR HISTORY OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians make the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify what treating physician(s) information the applicant must provide to request the reissuance of the medical certificate. If this is a first time issuance with this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A statement regarding symptomatology of the condition
- A statement addressing any associated illnesses, such as heart failure
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects
- A pulmonary specialist evaluation that includes the results of a current pulmonary function test performed with last 90 days

The Examiner should defer to the AMCD or Region if:

- The FEV1 or FEV1/FVC is less than 70%
- The applicant has been placed on a steroid dose equivalent to greater than 20mg of Prednisone per day
- The applicant has developed an associated cardiac condition

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AASI FOR HISTORY OF COLITIS (ULCERATIVE OR CROHN'S DISEASE)

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A statement regarding the extent of disease
- A statement regarding the frequency of exacerbation (the applicant should cease flying with any exacerbation as warned in §61.53)
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects

The Examiner should defer to the AMCD or Region if:

- There is a current exacerbation of the illness
- The applicant is taking medications such as Lomotil, steroid doses equivalent to more than 20mg of Prednisone per day, antispasmodics, and anticholinergics
- The pattern of exacerbations are increasing in frequency or severity; or applicant underwent surgical intervention

AASI FOR HISTORY OF COLON/COLORECTAL CANCER

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- An update of the status of the malignancy since the last FAA
 medical examination, to include the results of a current (performed
 within last 90 days) carcinoembryonic antigen (CEA), if a baseline
 value is available

The Examiner should defer to the AMCD or Region if:

 There has been any progression of the disease or an increase in CEA

AASI FOR HISTORY OF ORAL DIABETES MEDICATION(S) DIABETES MELLITUS – TYPE II

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A statement attesting that the airman is maintaining his or her diabetic diet
- A statement regarding any diabetic symptomology
- The results of a current HgA1c level

The Examiner should defer to the AMCD or Region if:

- The applicant has been placed on insulin
- The HgA1c level is greater than 9.0 mg%
- The applicant has developed cardiovascular, neurological, renal and/or ophthalmological disease

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AASI FOR HISTORY OF GLAUCOMA

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- Certification only granted for open-angle-glaucoma and ocular hypertension
- The FAA Form 8500-14, Glaucoma Eye Evaluation Form is filled out by the treating eye specialist
- A set of visual fields measurements is provided

The Examiner should defer to the AMCD or Region if:

- The FAA Form 8500-14 Glaucoma Eye Evaluation Form demonstrates visual acuity incompatible with the medical standards
- There is a change in visual fields or adverse change in ocular pressure

AASI FOR HISTORY OF HEPATITIS C

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- Any symptoms the applicant has developed
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects
- A current liver function profile performed within last 90 days

The Examiner should defer to the AMCD or Region if:

- The applicant has developed symptoms
- There has been a change in treatment regimen or the applicant has been placed on alpha-interferon
- Any side effects from required medication
- An adverse change in liver function studies

AASI FOR HISTORY OF HYPERTHYROIDISM

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA current statement of the condition since last FAA medical examination
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects
- Current thyroid function studies performed within last 90 days

The Examiner should defer to the AMCD or Region if:

- The thyroid function studies are elevated, suggesting inadequate treatment
- The applicant developed an associated illness, such as dysrhythmia

AASI FOR HISTORY OF HYPOTHYROIDISM

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects
- A statement regarding any other associated problems, such as cardiac or visual
- A statement regarding the current thyroid stimulating hormone (TSH) level performed within last 90 days

The Examiner should defer to the AMCD or Region if:

- The applicant develops a related problem in another system, such as cardiac
- The TSH level is elevated

AASI FOR HISTORY OF LYMPHOMA AND HODGKIN'S DISEASE

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- An update of the status of the disease from the last FAA medical examination and any testing deemed necessary by the treating physician

The Examiner should defer to the AMCD or Region if:

There has been any recurrence or disease progression

AASI FOR HISTORY OF MIGRAINES

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A statement regarding the frequency of headaches and/or other associated symptoms since last followup report
- A statement regarding if the characteristics of the headaches changed
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects

The Examiner should defer to the AMCD or Region if:

- The frequency of headaches and/or other symptoms increase since the last followup report
- The applicant is placed on a medication, such as isometheptene mucate, narcotic analgesic, tramadol, tricyclic-antidepressant medication, etc.

AASI FOR HISTORY OF MITRAL OR AORTIC INSUFFICIENCY

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A summary of the applicant's medical condition since the last FAA medical examination, including a statement regarding any further episodes of atrial fibrillation
- A current 2-D echocardiogram with Doppler performed within last 90 days

The Examiner should defer to the AMCD or Region if:

- The gradient across the valve reaches 40 mm HG
- New symptoms occur
- An arrhythmia develops
- The treating physician or Examiner reports the murmur is now moderate to severe (Grade III or IV)

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AASI FOR HISTORY OF PAROXYSMAL ATRIAL TACHYCARDIA

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A statement regarding any recurrences since the last FAA medical examination
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects

The Examiner should defer to the AMCD or Region if:

- There have been one or more recurrences
- The applicant has received some treatment that was not reported in the past, such as radiofrequency ablation

AASI FOR HISTORY OF PROSTATE CANCER

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A current status of the medical condition to include any testing deemed necessary
- A current prostate specific antigen (PSA) level performed within last 90 days

The Examiner should defer to the AMCD or Region if:

- The PSA rises at a rate above 0.75 ng/ml per year
- A new treatment is initiated
- Any metastasis has occurred

AASI FOR HISTORY OF RENAL CALCULI

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A statement from your treating physician regarding the location of the retained stone(s), estimation as to size of stone, and likelihood of becoming symptomatic
- A current report of appropriate imaging study (IVP, KUB, Ultrasound, or Spiral CT Scan) and provide a metabolic work-up, both performed within last 90 days

The Examiner should defer to the AMCD or Region if:

- If the treating physician comments that the current stone has a likelihood of becoming symptomatic
- If the retained stone(s) has moved when compared to previous evaluations
- If the stone(s) has become larger when compared to previous evaluation

AASI FOR HISTORY OF SLEEP APNEA

AME Assisted Special Issuance (AASI) is a process that provides Examiner's the ability to reissue an airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiner's may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A current report (performed within last 90 days) from the treating physician that references the present treatment, whether this has eliminated any symptoms and with specific comments regarding daytime sleepiness. If there is any question about response or compliance with treatment, then a Maintenance of Wakefulness Test (MWT) will be required

The Examiner should defer to the AMCD or Region if:

- There is any question concerning the adequacy of therapy
- The applicant appears to be non-compliant with therapy
- The MWT demonstrates sleep deficiency
- The applicant has developed some associated illness, such as right-sided heart failure

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DISEASE PROTOCOLS

The following 23 pages of the Guide for Aviation Medical Examiners lists the Disease Protocols, and course of action that should be taken by the Examiner as defined by aeromedical decision considerations.

PROTOCOL FOR CARDIOVASCULAR EVALUATION

A current cardiovascular evaluation must include:

- An assessment of personal and family medical history
- Clinical cardiac and general physical examination
- An assessment and statement regarding the applicant's medications, functional capacity, modifiable cardiovascular risk factors
- Motivation for any necessary change
- Prognosis for incapacitation
- Blood chemistries (fasting blood sugar, current blood lipid profile to include total cholesterol, HDL, LDL, and triglycerides) performed within last 90 days

PROTOCOL FOR EVALUATION OF CORONARY HEART DISEASE

Myocardial infarction, angina pectoris, or other evidence of coronary heart disease is covered in this protocol. Reports and test results relating to the diagnosis in accordance with the attached protocol must be obtained and forwarded to the AMCD.

- A. Requirements are for consideration for any class of airman medical certification.
- 1. A 6-month recovery period must elapse after the event (angina, infarction, bypass surgery, angioplasty, or stenting) before consideration can be given for medical certification.
- 2. Hospital admission summary (history and physical), coronary catheterization report, and operative report regarding all cardiac events and procedures.
- 3. A current cardiovascular evaluation must include an assessment of personal and family medical history; a clinical cardiac and general physical examination; an assessment and statement regarding the applicant's medications, functional capacity, modifiable cardiovascular risk factors, motivation for any necessary change, prognosis for incapacitation; and blood chemistries (fasting blood sugar, current blood lipid profile to include total cholesterol, HDL, LDL, and triglycerides).
- 4. A maximal ECG treadmill stress test must be performed no sooner than 6-months post event. All stress testing should achieve 100 percent of maximal predicted heart rate unless medically contraindicated or prevented either by symptoms, conditioning, or concurrent use of medication, such as: B-blockers, calcium channel blockers (spec. diltiazem or verapamil), and/or digitalis preparations. With the consent of the attending physician, these medications should be discontinued for at least 48 hours prior to testing in order to attain maximal stress.

The blood pressure/pulse recordings at various stages and actual ECG tracings must be submitted. Tracings must include a rhythm strip, a full 12-lead ECG recorded at rest (supine and standing) and during hyperventilation while standing, one or more times during each stage of exercise, at the end of each stage, at peak exercise, and every minute during recovery for at least 5 minutes or until the tracings return to baseline level. The worksheet and interpretive report must be submitted. Computer-generated, sample cycle ECG tracings are unacceptable in lieu of the complete tracings.

A **SPECT** myocardial perfusion exercise stress test using technetium agents and/or thallium may be required for consideration for any class if clinically

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indicated or the exercise stress test is abnormal by any of the usual parameters. The interpretive report and all **SPECT** images, preferably in black and white, must be submitted.

NOTE: If cardiac catheterization and/or coronary angiography have been performed, <u>all reports and the actual films</u> (if films are requested) must be submitted for review. Copies should be made of all films as a safeguard against loss. Films should be labeled with the name of the pilot and a return address.

- B. Additional requirements for first or unlimited* second-class medical certification. The following should be accomplished no sooner than 6-months post event:
- 1. Post-event coronary angiography. The application may be considered without post-event angiography but certification for first- and unlimited second-class is unlikely without it.
 - 2. A maximal thallium exercise stress test (See A. 4).
- 3. FAA Form 8500-20, Medical Exemption Petition (Operational Questionnaire). The applicant should indicate if a lower class medical certificate is acceptable in the event ineligible for class sought.
- C. Certification. Applicants found qualified for an airman medical certificate will be required to provide periodic follow-up cardiovascular evaluations including maximal stress testing. Additional diagnostic testing modalities, including radionuclide studies, may be required if indicated.

No consideration will be given for an Authorization until all the required data have been received. The use of the applicant's full name, date of birth, and social security number on all correspondence and reports will aid the agency in locating the proper file.

It is the responsibility of each applicant to provide the medical information required to determine his/her eligibility for airman medical certification. In order to expedite processing, it is suggested that the information be sent in ONE MAILING, when possible, to:

Medical Appeals Section, AAM-313 OR
Aerospace Medical Certification Division
Federal Aviation Administration
Post Office Box 26080
Oklahoma City OK 73125-9914

Medical Appeals Section, AAM-313 Aerospace Medical Certification Division Federal Aviation Administration 6700 S MacArthur Blvd., Room B-13 Oklahoma City OK 73169 *Limited second-class medical certificate refers to a second-class certificate with a functional limitation such as, "Not Valid for Carrying Passengers for Compensation or Hire", "Not Valid for Pilot in Command", "Valid Only When Serving as a Pilot Member of a Fully Qualified Two-Pilot Crew", "Limited to Flight Engineer Duties Only", etc.

PROTOCOL FOR HISTORY OF INSULIN-TREATED DIABETES MELLITUS - TYPE I and TYPE II

The FAA has established a policy that permits the special issuance medical certification of insulin-treated applicants for third-class medical certification. Consideration will be given only to those individuals who have been clinically stable on their current treatment regimen for a period of 6 months or more. Consideration is not being given for first- or second-class certification. Individuals certificated under this policy will be required to provide substantial documentation regarding their history of treatment, accidents related to their disease, and current medical status. If certificated, they will be required to adhere to stringent monitoring requirements and are prohibited from operating aircraft outside the United States. The following is a summary of the evaluation protocol and an outline of the conditions that the FAA will apply:

A. Initial Certification

- 1. The applicant must have had no recurrent (two or more) episodes of hypoglycemia in the past 5 years and none in the preceding 1 year which resulted in loss of consciousness, seizure, impaired cognitive function or requiring intervention by another party, or occurring without warning (hypoglycemia unawareness).
- 2. The applicant will be required to provide copies of all medical records as well as accident and incident records pertinent to their history of diabetes.
- 3. A report of a complete medical examination preferably by a physician who specializes in the treatment of diabetes will be required. The report must include, as a minimum:
- a. Two measurements of glycosylated hemoglobin (total A_1 or A_{1c} concentration and the laboratory reference range), separated by at least 90 days. The most recent measurement submitted must be no more than 90 days old.
 - b. Specific reference to the applicant's insulin dosages and diet.
- c. Specific reference to the presence or absence of cerebrovascular, cardiovascular, or peripheral vascular disease or neuropathy.
- d. Confirmation by an eye specialist of the absence of clinically significant eye disease.

- e. Verification that the applicant has been educated in diabetes and its control and understands the actions that should be taken if complications, especially hypoglycemia, should arise. The examining physician must also verify that the applicant has the ability and willingness to properly monitor and manage his or her diabetes.
- f. If the applicant is age 40 or older, a report, with ECG tracings, of a maximal graded exercise stress test.
- g. The applicant must submit a statement from his/her treating physician, Examiner, or other knowledgeable person attesting to the applicant's dexterity and ability to determine blood glucose levels using a recording glucometer.

NOTE: Student pilots may wish to ensure they are eligible for medical certification prior to beginning or resuming flight instruction or training. In order to serve as a pilot in command, you must have a valid medical certificate for the type of operation performed.

B. Subsequent Medical Certification

- 1. For documentation of diabetes management, the applicant will be required to carry and use a whole blood glucose measuring device with memory and must report to the FAA immediately any hypoglycemic incidents, any involvement in accidents resulting in serious injury (whether or not related to hypoglycemia), and any evidence of loss of control of diabetes, change in treatment regimen, or significant diabetic complications. With any of these occurrences, the individual must cease flying until cleared by the FAA.
- 2. At 3-month intervals, the airman must be evaluated by the treating physician. This evaluation must include a general physical examination, review of the interval medical history, and the results of a test for glycosylated hemoglobin concentration. The physician must review the record of the airman's daily blood glucose measurements and comment on the results. The results of these quarterly evaluations must be accumulated and submitted annually unless there has been a change. (See No. 1 above. If there has been a change the individual must report the change(s) to the FAA and wait for an eligibility letter before resuming flight duties).
- 3. On an annual basis, the reports from the examining physician must include confirmation by an eye specialist of the absence of significant eye disease.

4. At the first examination after age 40 and at 5-year intervals, the report, with ECG tracings, of a maximal graded exercise stress test must be included in consideration of continued medical certification.

C. Monitoring And Actions Required During Flight Operations

To ensure safe flight, the insulin using diabetic airman must carry during flight a recording glucometer, adequate supplies to obtain blood samples, and an amount of rapidly absorbable glucose, in 10 gm portions, appropriate to the planned duration of the flight. The following actions shall be taken in connection with flight operations:

- One-half hour prior to flight, the airman must measure the blood glucose concentration. If it is less than 100 mg/dl the individual must ingest an appropriate (not less than 10 gm) glucose snack and measure the glucose concentration one-half hour later. If the concentration is within 100 -- 300 mg/dl, flight operations may be undertaken. If less than 100, the process must be repeated; if over 300, the flight must be canceled.
- 2. One hour into the flight, at each successive hour of flight, and within one-half hour prior to landing, the airman must measure his or her blood glucose concentration. If the concentration is less than 100 mg/dl, a 20 gm glucose snack shall be ingested. If the concentration is 100 -- 300 mg/dl, no action is required. If the concentration is greater that 300 mg/dl, the airman must land at the nearest suitable airport and may not resume flight until the glucose concentration can be maintained in the 100 -- 300 mg/dl range. In respect to determining blood glucose concentrations during flight, the airman must use judgment in deciding whether measuring concentrations or operational demands of the environment (e.g., adverse weather, etc.) should take priority. In cases where it is decided that operational demands take priority, the airman must ingest a 10 gm glucose snack and measure his or her blood glucose level 1 hour later. If measurement is not practical at that time, the airman must ingest a 20 gm glucose snack and land at the nearest suitable airport so that a determination of the blood glucose concentration may be made.

PROTOCOL FOR HISTORY OF ORAL DIABETES MEDICATION(S) DIABETES MELLITUS – TYPE II

Applicants with a diagnosis of diabetes mellitus controlled by use of an oral medication may be considered by the FAA for Special Issuance of a Medical Certificate. Following initiation of oral medication treatment, a 60-day period must elapse prior to certification to assure stabilization, adequate control, and the absence of side effects or complications from the medication.

Initial certification decisions shall not be made by the Examiner. These cases will be deferred to the AMCD. Examiners may be delegated authority to make subsequent certification decisions, subject to AMCD review and consideration.

The initial determination of eligibility will be made on the basis of a report from the treating physician. For favorable consideration, the report must contain a statement regarding the medication used, dosage, the absence or presence of side effects and clinically significant hypoglycemic episodes, and an indication of satisfactory control of the diabetes. The results of an A1C hemoglobin determination within the past 30 days must be included. Note must also be made of the absence or presence of cardiovascular, neurological, renal, and/or ophthalmological disease. The presence of one or more of these associated diseases will not be, per se, disqualifying, but the disease(s) must be carefully evaluated to determine any added risk to aviation safety.

Recertification decisions will also be made on the basis of reports from the treating physician. The contents of the report must contain the same information required for initial certification and specifically reference the presence or absence of satisfactory control, any change in the dosage or type of oral hypoglycemic drug, and the presence or absence of complications or side effects from the medication. In the event of an adverse change in the applicant's diabetic status (poor control or complications or side effects from the medication), or the appearance of an associated systemic disease, an Examiner who has been given the authority to issue a certificate pending further review and consideration by the AMCD must defer certification to the AMCD.

If, upon further review, it is decided that recertification is appropriate, the Examiner may again be given the authority to issue certificates (subject to AMCD review and consideration) based on data provided by the treating physician, including such information as may be required to assess the associated medical condition(s).

As a minimum, followup evaluations by the treating physician of the applicant's diabetes status are required annually for all classes.

Airmen who are diabetics should be counseled by Examiners regarding the significance of their disease and its possible complications. They should be

informed of the potential for hypoglycemic reactions and cautioned to remain under close medical surveillance by their treating physicians. They should also be advised that should their oral hypoglycemic be changed or dosages modified, they should not perform airman duties until the treating physician has concluded that their conditions are under control and present no hazard to aviation safety. Airmen who use insulin for the treatment of their diabetics, may only be considered for special issuance for third-class medical certification.

PROTOCOL FOR HISTORY OF DIABETES MELLITUS CONTROLLED BY DIET AND EXERCISE

A blood glucose determination is not a routine part of the FAA medical evaluation for any class of medical certificate. However, the examination does include a routine urinalysis. A medical history or clinical diagnosis of diabetes mellitus may be considered previously established when the diagnosis has been or clearly could be made because of supporting laboratory findings and/or clinical signs and symptoms. When an applicant with a history of diabetes is examined for the first time, the Examiner should explain the procedures involved and assist in obtaining prior records and current special testing.

Applicants with a diagnosis of diabetes mellitus controlled by diet alone are considered eligible for all classes of medical certificates under the medical standards, provided they have no evidence of associated disqualifying cardiovascular, neurological, renal, or ophthalmological disease. Specialized examinations need not be performed unless indicated by history or clinical findings. The Examiner must document these determinations on FAA Form 8500-8.

PROTOCOL FOR HISTORY OF HUMAN IMMUNODEFICIENCY VIRUS (HIV) RELATED CONDITIONS

Persons on antiretroviral medication will be considered only if the medication is approved by the U.S. Food and Drug Administration and is used in accordance with an acceptable drug therapy protocol. Acceptable protocols are cited in *Guidelines for the Use of Antiretroviral Agents in HIV-Infected Adults and Adolescents* developed by the Department of Health and Human Services Panel on Clinical Practices for Treatment of HIV Infection.

Application for special issuance must include reports of examination by a physician knowledgeable in the treatment of HIV-infected persons and a medical history emphasizing symptoms and treatment referable to the immune and neurologic system. In addition, these reports must include a "viral load" determination by polymerase chain reaction (PCR), CD4+ lymphocyte count, a complete blood count, and the results of liver function tests. An assessment of cognitive function (preferably by *Cogscreen* or other test battery acceptable to the Federal Air Surgeon) must be submitted. Additional cognitive function tests may be required as indicated by results of the cognitive tests. At the time of initial application, viral load must not exceed 1,000 copies per milliliter of plasma, and cognitive testing must show no significant deficit(s) that would preclude the safe performance of airman duties.

Followup evaluations of applicants granted certification will include quarterly determinations of viral load by PCR, a CD4+ cell count, and the results of other laboratory and clinical tests deemed appropriate by the treating physician. These will be included in a written status report provided by the treating physician every 6 months. In addition, the results of cognitive function studies will be required at annual intervals for medical clearance or medical certification of ATCS's and first-and second-class applicants. Third-class applicants will be required to submit cognitive function studies every 2 years.

Adverse clinical findings, including significant changes in cognitive test results or an increased viral load exceeding 5,000 copies per milliliter shall constitute a basis for withdrawing medical certification.

Exceptions, if any, will be based on individual consideration by the Federal Air Surgeon.

PROTOCOL FOR EVALUATION OF HYPERTENSION

<u>Initial</u>: The Examiner may issue first-, second-, or third-class medical certificates to otherwise qualified airmen whose hypertension is adequately controlled with acceptable medications without significant adverse effects. In such cases, the Examiner shall:

- 1. Conduct an evaluation or, at the applicant's option, review the report of a current (within preceding 6 months) cardiovascular evaluation by the applicant's attending physician. This evaluation must include pertinent personal and family medical history, including an assessment of the risk factors for coronary heart disease, a clinical examination including at least three blood pressure readings, separated by at least 24-hours each, a resting ECG, and a report of fasting plasma glucose, cholesterol (LDL/HDL), triglycerides, potassium, and creatinine levels. A maximal electrocardiographic exercise stress test will be accomplished if it is indicated by history or clinical findings. Specific mention must be made of the medications used, their dosage, and the presence, absence, or history of adverse effects.
- 2. Summarize the results of this evaluation in Item 60 of the transmitted application and forward the appropriate documents to the AMCD.
- 3. Report the results of any additional tests or evaluations that have been accomplished.
- 4. If appropriate, state in Item 60 on the FAA Form 8500-8 that the applicant's blood pressure is adequately controlled with acceptable medication, there are no known significant adverse effects, and no other cardiovascular, cerebrovascular, or arteriosclerotic disease is evident.
- 5. Defer certification if the person declines any of the recommended evaluations.

Medications:

- 1. Medications acceptable to the FAA for treatment of hypertension in airmen include all Food and Drug Administration (FDA) approved diuretics, alpha-adrenergic blocking agents, beta-adrenergic blocking agents, calcium channel blocking agents, angiotension converting enzyme (ACE inhibitors) agents, and direct vasodilators. Centrally acting agents (such as, reserpine, guanethidine, guanadrel, guanabenz, and methyldopa) are <u>not</u> usually acceptable to the FAA. Dosage levels should be the minimum necessary to obtain optimal clinical control and should not be modified to influence the certification decision.
- 2. The Examiner may submit for the Federal Air Surgeon's review requests for Authorization under the special issuance section of part 67 (14 CFR 67.401) in

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cases in which these or other usually unacceptable medications are used. Specialty evaluations are required in such cases and must provide information on why the specific drug is required. The Examiner's own recommendation should be included. The Examiner must defer issuance of a medical certificate to any applicant whose hypertension is being treated with unacceptable medications.

<u>Followup</u>: Followup evaluations must include a current status report describing at least the medications used and their dosages, the adequacy of blood pressure control, the presence or absence of side effects, the presence or absence of endorgan complications and the results of any appropriate tests or studies. This evaluation can be performed by the Examiner if the Examiner can attest to the accuracy of the above information.

Hypertension follow-ups are required annually for first- and second-class medical certificate applicants and at the time of renewal for third-class certificate applicants.

<u>Duration of Certificates</u>: The duration of the certificate will be valid until the time of normal expiration, unless otherwise specified by the FAA.

PROTOCOL FOR EVALUATION OF IMPLANTED PACEMAKER

A 2-month recovery period must elapse after the pacemaker implantation to allow for recovery and stabilization. Submit the following:

- 1. Copies of hospital/medical records pertaining to the requirement for the pacemaker, make of the generator and leads, model and serial number, admission/discharge summaries, operative report, and all ECG tracings.
- 2. Evaluation of pacemaker function to include description and documentation of underlying rate and rhythm with the pacer turned "off" or at its lowest setting (pacemaker dependency), programmed pacemaker parameters, surveillance record, and exclusion of myopotential inhibition and pacemaker induced hypotension (pacemaker syndrome), Powerpack data including beginning of life (BOL) and elective replacement indicator/end of life (ERI/EOL).
- 3. Readable samples of all electronic pacemaker surveillance records post surgery or over the past 6 months, or whichever is longer. It must include a sample strip with pacemaker in free running mode and unless contraindicated, a sample strip with the pacemaker in magnetic mode.
- 4. An assessment and statement from a physician regarding general physical and cardiac examination to include symptoms or treatment referable to the cardiovascular system; the airman's interim and current cardiac condition, functional capacity, medical history, and medications.
- 5. A report of current fasting blood sugar and a current blood lipid profile to include: total cholesterol, HDL, LDL, and triglycerides.
- 6. A current Holter monitor evaluation for at least 24-consecutive hours, to include select representative tracings.
- 7. A current M-mode, 2-dimensional echocardiogram with Doppler.
- 8. A current Maximal Graded Exercise Stress Test Requirements.

An ECG treadmill stress test should achieve 100% of predicted maximal heart rate unless medically contraindicated or prevented either by symptoms or medications. Beta blockers and calcium channel blockers (spec. diltiazem and verapamil), or digitalis preparations should be discontinued for 48 hours prior to testing (if not contraindicated) in order to obtain maximum heart rate and only with consent of the treating physician. The worksheet with blood pressure/pulse recordings at various stages, interpretive report, and actual ECG tracings must be submitted. Tracings must include a rhythm strip, a full 12-lead ECG recorded at rest (supine and standing) and during hyperventilation while standing, one or more times during each stage of exercise, at the end of each stage, at peak exercise, and every minute during recovery for at least five

minutes or until the tracings return to baseline level. Computer generated, sample-cycle ECG tracings are <u>unacceptable</u> in lieu of the standard tracings. If submitted alone may result in deferment until this requirement is met.

9. It is the responsibility of each applicant to provide the medical information required to determine his/her eligibility for airman medical certification. A medical release form may help in obtaining the necessary information.

All information shall be forwarded in one mailing to:

Medical Appeals Branch, AAM-313 OR
Aerospace Medical Certification Division
Federal Aviation Administration
Post Office Box 26080
Oklahoma City OK 73125-9914

Medical Appeals Branch, AAM-313 Aerospace Medical Certification Division Federal Aviation Administration 6700 S MacArthur Blvd., Room B-13 Oklahoma City OK 73169

No consideration can be given for special issuance until all the required data has been received.

The use of the airman's full name and date of birth on all correspondence and reports will aid the agency in locating the proper file.

PROTOCOL FOR MUSCULOSKELETAL EVALUATION

The Examiner should defer issuance.

An applicant with a history of musculoskeletal conditions must submit the following if consideration for medical certification is desired:

- Current status report
- Functional status report
- Degree of impairment as measured by strength, range of motion, pain

NOTE: If the applicant is otherwise qualified, the FAA may issue a limited certificate. This certificate will permit the applicant to proceed with flight training until ready for a medical flight test. At that time, and at the applicant's request, the FAA (usually the AMCD) will authorize the student pilot to take a medical flight test in conjunction with the regular flight test. The medical flight test and regular private pilot flight test are conducted by an FAA inspector. This affords the student an opportunity to demonstrate the ability to control the aircraft despite the handicap. The FAA inspector prepares a written report and indicates whether there is a safety problem. A medical certificate and statement of demonstrated ability (SODA), without the student limitation, may be provided to the inspector for issuance to the applicant, or the inspector may be required to send the report to the FAA medical officer who authorized the test.

When prostheses are used or additional control devices are installed in an aircraft to assist the amputee, those found qualified by special certification procedures will have their certificates limited to require that the device(s) (and, if necessary, even the specific aircraft) must always be used when exercising the privileges of the airman certificate.

PROTOCOL FOR PEPTIC ULCER

An applicant with a history of an active ulcer within the past 3-months or a bleeding ulcer within the past 6-months must provide evidence that the ulcer is healed if consideration for medical certification is desired.

Evidence of healing must be verified by a report from the attending physician that includes the following information:

- Confirmation that the applicant is free of symptoms
- Radiographic or endoscopic evidence that the ulcer has healed
- The name and dosage of medication(s) used for treatment and/or prevention, along with a statement describing side effects or removal

This information must be submitted to the AMCD. Under favorable circumstances, the FAA may issue a certificate with special requirements. For example, an applicant with a history of bleeding ulcer may be required to have the physician submit followup reports every 6 months for 1 year following initial certification.

The prophylactic use of medications including simple antacids, H-2 inhibitors or blockers, proton pump inhibitors, and/or sucralfates may not be disqualifying, if free from side effects.

An applicant with a history of gastric resection for ulcer may be favorably considered if free of sequelae.

PROTOCOL FOR RENAL TRANSPLANT

An applicant with a history of renal transplant must submit the following if consideration for medical certification is desired:

- 1. Hospital admission, operative report and discharge summary
- 2. Current status report including:
 - The etiology of the primary renal disease
 - History of hypertension or cardiac dysfunction
 - Sequela prior to transplant
 - A comment regarding rejection or graft versus host disease (GVHD)
 - Immunosuppressive therapy and side effects, if any
 - The results of the following laboratory results: CBC, BUN, creatinine, and electrolytes

PROTOCOL FOR SUBSTANCES OF DEPENDENCE/ABUSE (DRUGS - ALCOHOL)

The Examiner must defer issuance.

An applicant with a history of substances of dependence/abuse (drugs - alcohol) must submit the following if consideration for medical certification is desired:

- A current status report from a health care provider specializing in addictive disorders.
- A personnel statement attesting to the substance and amount, and date last used
- If attended a rehabilitation clinic/center, provide dates and copies of treatment plan

NOTE: The applicant may be required to submit additional information before medical disposition can be rendered.

PROTOCOL FOR THROMBOEMBOLIC DISEASE

An applicant with a history of thromboembolic disease must submit the following if consideration for medical certification is desired:

- 1. Hospital admission and discharge summary
- 2. Current status report including:
 - Detailed family history of thromboembolic disease
 - · Neoplastic workup, if clinically indicated
 - PT/PTT
 - Protein S & C
 - Leiden Factor V
 - If still anticoagulated, submit all International Normalized Ratio (INR) from time of hospital discharge to present

LAST UPDATE: September 24, 2003

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PROTOCOL FOR CARDIAC VALVE REPLACEMENT

Applicants with tissue and mechanical valve replacements are considered after the following:

A 6-month recovery period shall elapse after the valve replacement to ensure recovery and stabilization. First- and second-class initial applicants are reviewed by the Federal Air Surgeon's cardiology panel.

- 1. Copies of hospital/medical records pertaining to the requirement for the valve to include make, model, serial number and size, admission/ discharge summaries, operative report, and pathology report.
- 2. A current evaluation from your attending physician regarding your use of Coumadin to confirm stability without complications, drug dose history and schedule, and International Normalized Ratio (INR) values accomplished at least monthly during the past 6-month period of observation.
- 3. A current report from your treating physician regarding the status of your cardiac valve replacement. This report should address your general cardiovascular condition as well as any symptoms of valve or heart failure and any related abnormal physical findings, and must reveal satisfactory recovery and cardiac function without evidence of embolic phenomena, significant arrhythmia, structural abnormality, or ischemic disease.
- 4. A current 24-hour Holter monitor evaluation to include select representative tracings.
- 5. Current M-mode, 2-dimensional echocardiogram with Doppler. Please submit the video resulting from this study.
- 6. A current maximal treadmill stress test. An ECG treadmill stress test should achieve 100 percent of predicted maximal heart rate unless medically contraindicated or prevented either by symptoms or medications. Beta blockers and calcium channel blockers (specifically diltiazem and verapamil), or digitalis preparations should be discontinued for 48 hours prior to testing (if not contraindicated) in order to obtain maximum heart rate and only with consent of the treating physician. The worksheet with blood pressure/pulse recordings at various stages, interpretive report, and copies of actual ECG tracings must be submitted. Tracings must include a rhythm strip, a full 12-lead ECG recorded at rest (supine and standing) and during hyperventilation while standing, one or more times during each stage of exercise, at the end of each stage, at peak exercise, and every minute during recovery for at least five minutes or until the tracings return to baseline level. Computer generated, sample-cycle ECG tracings are unacceptable in lieu of the standard tracings and if submitted alone may result in deferment until this requirement is met.

- 7. If cardiac catheterization and coronary angiography have been performed, all reports and films must be submitted, if required, for review by the agency. Copies should be made of all films as a safeguard against loss.
- 8. Following heart valve replacement, first- and second-class certificate holders shall be followed at 6-month intervals with clinical status reports and at 12-month intervals with a CVE, standard ECG, and Doppler echocardiogram. Holter monitoring and GXT's may be required periodically if indicated clinically. For third-class certificate holders, the above followup testing will be required annually unless otherwise indicated.
- 9. Mechanical Heart Valve Replacement. All applicants following mechanical heart valve replacement must be anticoagulated.
- 10. Multiple Heart Valve Replacement. Applicants who have received multiple heart valve replacements must be deferred. However, the AMCD may consider certification of all classes of applicants who have undergone a Ross procedure (pulmonic valve transplanted to the aortic position and pulmonic valve replaced by a bioprosthesis).

It is the responsibility of each applicant to provide the medical information required to determine his/her eligibility for airman medical certification. A medical release form may help in obtaining the necessary information.

All information shall be forwarded in one mailing to:

FAA Civil Aerospace Medical Institute OR FAA Civil Aerospace Medical Institute Medical Appeals Branch, AAM-313 Medical Appeals Branch, AAM-313 Post Office Box 26080 6700 S MacArthur Blvd.
Oklahoma City OK 73125-9914 Oklahoma City OK 73169

No consideration can be given for special issuance until all the required data has been received.

Use of the above reference number and your full name on any reports or correspondence will aid us in locating your file.

PROTOCOL FOR VALVULOPLASTY

An applicant with a history of valvuloplasty must submit the following if consideration for medical certification is desired.

Valvuloplasty (surgical or balloon) for Mitral or Pulmonary Stenosis:

Initial:

- A 6-month period must elapse before consideration for any class medical certification
- Cardiovascular Examination (CVE)
- ECG
- Echocardiography and a symptom-limited GXT must show an acceptably increased exercise capacity without ischemia

Followup: Required annually.

- CVE
- Echocardiography
- ECG
- When indicated a 24-hour Holter and a GXT

Valvuloplasty (surgical or balloon) for Aortic Stenosis:

- A favorable determination is unlikely if this procedure was performed after age 16
- Same as the above initial requirements

* This Index is presented in three Sections:

Section I - Index of the Guide for Aviation Medical Examiners

Section II - AME Assisted Special Issuances

Section III - Disease Protocols

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GLOSSARY/ACRONYMS

- **AAM** Office of Aerospace Medicine
- **AASI** AME Assisted Special Issuance Disposition criteria for AME's who may certificate an eligible applicant seeking third-class medical certificates, or when to defer issuance to the AMCD
- **AMCD** Aerospace Medical Certification Division located at the Civil Aerospace Medical Institute in Oklahoma City, Oklahoma
- **AMCS** Airman Medical Certification System allows the AME to electronically submit FAA Form 8500-8, Application for Airman Medical Certificate or Airman Medical and Student Pilot Certificate, to AMCD
- **AME** Aviation Medical Examiner a physician designated by the FAA and given the authority to perform airman physical examinations for issuance of secondand third-class medical and student pilot certificates
- **ATCS** Air Traffic Control Specialist
- **AV** Atrioventricular
- **BUN** Blood Urea Nitrogen Test
- **CAD** Coronary Artery Disease
- **CAMI** Civil Aerospace Medical Institute located in Oklahoma City, Oklahoma
- **CAT** Computerized Axial Tomography Scan
- **CBC** Complete Blood Count
- **CEA** Carcinoembryonic Antigen
- **CFR** Code of Federal Regulations
- **CHD** Coronary Heart Disease
- **CT** Computed Tomography Scan
- **CVE** Cardiovascular Evaluation
- **DOT** Department of Transportation

DUI/DWI - Driving Under The Influence/Driving While Intoxicated

ECG - Electrocardiogram

ECHO - Echocardiographic Images

ENT – Ear, Nose, and Throat

FAA - Federal Aviation Administration

FAR - Federal Aviation Regulations

FSDO - Flight Standards District Office

GXT - Graded Exercise Test

IVP - Intravenous Pyelography Test

KUB – Kidneys, Ureters and Bladder

MFO - Medical Field Office

MFT - Medical Flight Test

MRI - Magnetic Resonance Imaging

MVP - Mitral Valve Prolapse

NTSB - National Transportation Safety Board

RF – Radio Frequency Ablation

RFS - Regional Flight Surgeon

PAC's - Premature Arterial Contractions

PET - Radioactive High-Tech Scan

PFT - Pulmonary Function Test

PSA - Prostate-Specific Antigen

PT - Prothrombin Time

PTT - Partial Thromboplastin Time

PVC's - Premature Ventricular Contractions

SODA - Statement of Demonstrated Ability

TFT - Thyroid Function Test

US - Ultra Sound

PART 67--MEDICAL STANDARDS AND CERTIFICATION

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Authority: 49 U.S.C. 106(g), 40113, 44701-44703, 44707, 44709-44711, 45102-45103, 45301-45303.

Subpart A--General

Sec. 67.1 Applicability. -

This part prescribes the medical standards and certification procedures for issuing medical certificates for airmen and for remaining eligible for a medical certificate.

Sec. 67.3 Issue. -

Except as provided in Sec. 67.5, a person who meets the medical standards prescribed in this part, based on medical examination and evaluation of the person's history and condition, is entitled to an appropriate medical certificate.

Sec. 67.5 Certification of foreign airmen. -

A person who is neither a United States citizen nor a resident alien is issued a certificate under this part, outside the United States, only when the Administrator finds that the certificate is needed for operation of a U.S.-registered aircraft.

Sec. 67.7 Access to the National Driver Register. -

At the time of application for a certificate issued under this part, each person who applies for a medical certificate shall execute an express consent form authorizing the Administrator to request the chief driver licensing official of any state designated by the Administrator to transmit information contained in the National Driver Register about the person to the Administrator. The Administrator shall make information received from the National Driver Register, if any, available on request to the person for review and written comment.

Subpart B -- First-Class Airman Medical Certificate

Sec. 67.101 Eligibility. -

To be eligible for a first-class airman medical certificate, and to remain eligible for a first-class airman medical certificate, a person must meet the requirements of this subpart.

Sec. 67.103 Eye. -

Eye standards for a first-class airman medical certificate are: -

- (a) Distant visual acuity of 20/20 or better in each eye separately, with or without corrective lenses. If corrective lenses (spectacles or contact lenses) are necessary for 20/20 vision, the person may be eligible only on the condition that corrective lenses are worn while exercising the privileges of an airman certificate. -
- (b) Near vision of 20/40 or better, Snellen equivalent, at 16 inches in each eye separately, with or without corrective lenses. If age 50 or older, near vision of 20/40 or better, Snellen equivalent, at both 16 inches and 32 inches in each eye separately, with or without

corrective lenses. -

- (c) Ability to perceive those colors necessary for the safe performance of airman duties. $\mbox{-}$
 - (d) Normal fields of vision. -
- (e) No acute or chronic pathological condition of either eye or adnexa that interferes with the proper function of an eye, that may reasonably be expected to progress to that degree, or that may reasonably be expected to be aggravated by flying. -
- (f) Bifoveal fixation and vergence-phoria relationship sufficient to prevent a break in fusion under conditions that may reasonably be expected to occur in performing airman duties. Tests for the factors named in this paragraph are not required except for persons found to have more than 1 prism diopter of hyperphoria, 6 prism diopters of esophoria, or 6 prism diopters of exophoria. If any of these values are exceeded, the Federal Air Surgeon may require the person to be examined by a qualified eye specialist to determine if there is bifoveal fixation and an adequate vergence-phoria relationship. However, if otherwise eligible, the person is issued a medical certificate pending the results of the examination.

67.105 Ear, nose, throat, and equilibrium. -

Ear, nose, throat, and equilibrium standards for a first-class airman medical certificate are:

- (a) The person shall demonstrate acceptable hearing by at least one of the following tests:
- (1) Demonstrate an ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 6 feet from the examiner, with the back turned to the examiner.
- (2) Demonstrate an acceptable understanding of speech as determined by audiometric speech discrimination testing to a score of at least 70 percent obtained in one ear or in a sound field environment.
- (3) Provide acceptable results of pure tone audiometric testing of unaided hearing acuity according to the following table of worst acceptable thresholds, using the calibration standards of the American National Standards Institute, 1969 (11 West 42d Street, New York, NY 10036):

-	500	1000	2000	
3000 Frequency (Hz)		Hz		Hz
Better ear (Db)			30 50	
60				

- (b) No disease or condition of the middle or internal ear, nose, oral cavity, pharynx, or larynx that--
- (1) Interferes with, or is aggravated by, flying or may reasonably be expected to do so; or
 - (2) Interferes with, or may reasonably be expected to interfere

with, clear and effective speech communication.

(c) No disease or condition manifested by, or that may reasonably be expected to be manifested by, vertigo or a disturbance of equilibrium.

Sec. 67.107 Mental.

Mental standards for a first-class airman medical certificate are:

- (a) No established medical history or clinical diagnosis of any of the following:
- (1) A personality disorder that is severe enough to have repeatedly manifested itself by overt acts.
- (2) A psychosis. As used in this section, "psychosis" refers to a mental disorder in which:
- (i) The individual has manifested delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of this condition; or
- (ii) The individual may reasonably be expected to manifest delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of this condition.
 - (3) A bipolar disorder.
- (4) Substance dependence, except where there is established clinical evidence, satisfactory to the Federal Air Surgeon, of recovery, including sustained total abstinence from the substance(s) for not less than the preceding 2 years. As used in this section----
- (i) "Substance" includes: Alcohol; other sedatives and hypnotics; anxiolytics; opioids; central nervous system stimulants such as cocaine, amphetamines, and similarly acting sympathomimetics; hallucinogens; phencyclidine or similarly acting arylcyclohexylamines; cannabis;

inhalants; and other psychoactive drugs and chemicals; and

- (ii) "Substance dependence" means a condition in which a person is dependent on a substance, other than tobacco or ordinary xanthine-containing (e.g., caffeine) beverages, as evidenced by--
 - (A) Increased tolerance;
 - (B) Manifestation of withdrawal symptoms;
 - (C) Impaired control of use; or
- (D) Continued use despite damage to physical health or impairment of social, personal, or occupational functioning.
 - (b) No substance abuse within the preceding 2 years defined as:
- (1) Use of a substance in a situation in which that use was physically hazardous, if there has been at any other time an instance of the use of a substance also in a situation in which that use was physically hazardous;
- (2) A verified positive drug test result acquired under an antidrug program or internal program of the U.S. Department of Transportation or any other Administration within the U.S. Department of Transportation; or
- (3) Misuse of a substance that the Federal Air Surgeon, based on case history and appropriate, qualified medical judgment relating to the substance involved, finds--
- (i) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (ii) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

- (c) No other personality disorder, neurosis, or other mental condition that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds--
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

Sec. 67.109 Neurologic.

Neurologic standards for a first-class airman medical certificate are:

- (a) No established medical history or clinical diagnosis of any of the following:
 - (1) Epilepsy;
- (2) A disturbance of consciousness without satisfactory medical explanation of the cause; or
- (3) A transient loss of control of nervous system function(s) without satisfactory medical explanation of the cause.
- (b) No other seizure disorder, disturbance of consciousness, or neurologic condition that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds--
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

Sec. 67.111 Cardiovascular.

Cardiovascular standards for a first-class airman medical certificate are:

- (a) No established medical history or clinical diagnosis of any of the following:
 - (1) Myocardial infarction;
 - (2) Angina pectoris;
- (3) Coronary heart disease that has required treatment or, if untreated, that has been symptomatic or clinically significant;
 - (4) Cardiac valve replacement;
 - (5) Permanent cardiac pacemaker implantation; or
 - (6) Heart replacement;
- (b) A person applying for first-class medical certification must demonstrate an absence of myocardial infarction and other clinically significant abnormality on electrocardiographic examination:
 - (1) At the first application after reaching the 35th birthday; and
 - (2) On an annual basis after reaching the 40th birthday.
- (c) An electrocardiogram will satisfy a requirement of paragraph (b) of this section if it is dated no earlier than 60 days before the date of the application it is to accompany and was performed and transmitted according to acceptable standards and techniques.
- Sec. 67.113 General medical condition.

The general medical standards for a first-class airman medical certificate are:

- (a) No established medical history or clinical diagnosis of diabetes mellitus that requires insulin or any other hypoglycemic drug for control.
- (b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds--
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.
- (c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds--
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

Sec. 67.115 Discretionary issuance.

A person who does not meet the provisions of Secs. 67.103 through 67.113 may apply for the discretionary issuance of a certificate under Sec. 67.401.

Subpart C--Second-Class Airman Medical Certificate

Sec. 67.201 Eligibility.

To be eligible for a second-class airman medical certificate, and to remain eligible for a second-class airman medical certificate, a person must meet the requirements of this subpart.

Sec. 67.203 Eye.

Eye standards for a second-class airman medical certificate are:

- (a) Distant visual acuity of 20/20 or better in each eye separately, with or without corrective lenses. If corrective lenses (spectacles or contact lenses) are necessary for 20/20 vision, the person may be eligible only on the condition that corrective lenses are worn while exercising the privileges of an airman certificate.
- (b) Near vision of 20/40 or better, Snellen equivalent, at 16 inches in each eye separately, with or without corrective lenses. If age 50 or older, near vision of 20/40 or better, Snellen equivalent, at both 16 inches and 32 inches in each eye separately, with or without corrective lenses.
- (c) Ability to perceive those colors necessary for the safe performance of airman duties.
 - (d) Normal fields of vision.
 - (e) No acute or chronic pathological condition of either eye or

adnexa that interferes with the proper function of an eye, that may reasonably be

expected to progress to that degree, or that may reasonably be expected to be aggravated by flying.

(f) Bifoveal fixation and vergence-phoria relationship sufficient to prevent a break in fusion under conditions that may reasonably be expected to occur in performing airman duties. Tests for the factors named in this paragraph are not required except for persons found to have more than 1 prism diopter of hyperphoria, 6 prism diopters of esophoria, or 6 prism diopters of exophoria. If any of these values are exceeded, the Federal Air Surgeon may require the person to be examined by a qualified eye specialist to determine if there is bifoveal fixation and an adequate vergence-phoria relationship. However, if otherwise eligible, the person is issued a medical certificate pending the results of the examination.

Sec. 67.205 Ear, nose, throat, and equilibrium.

Ear, nose, throat, and equilibrium standards for a second-class airman medical certificate are:

- (a) The person shall demonstrate acceptable hearing by at least one of the following tests:
- (1) Demonstrate an ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 6 feet from the examiner, with the back turned to the examiner.
- (2) Demonstrate an acceptable understanding of speech as determined by audiometric speech discrimination testing to a score of at least 70 percent obtained in one ear or in a sound field environment.
- (3) Provide acceptable results of pure tone audiometric testing of unaided hearing acuity according to the following table of worst acceptable thresholds, using the calibration standards of the American National Standards Institute, 1969:

-	500	1000	2000	
3000	300	1000	2000	
Frequency (Hz)			Hz	
_				
Better ear (Db)	35	30 -	30	
Poorer ear (Db)	35	50	50	
_				

- (b) No disease or condition of the middle or internal ear, nose, oral cavity, pharynx, or larynx that--
- (1) Interferes with, or is aggravated by, flying or may reasonably be expected to do so; or $\,$
- (2) Interferes with, or may reasonably be expected to interfere with, clear and effective speech communication.
- (c) No disease or condition manifested by, or that may reasonably be expected to be manifested by, vertigo or a disturbance of equilibrium.

Mental standards for a second-class airman medical certificate are:

- (a) No established medical history or clinical diagnosis of any of the following:
- (1) A personality disorder that is severe enough to have repeatedly manifested itself by overt acts.
- (2) A psychosis. As used in this section, "psychosis" refers to a mental disorder in which:
- (i) The individual has manifested delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of this condition; or
- (ii) The individual may reasonably be expected to manifest delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of this condition.
 - (3) A bipolar disorder.
- (4) Substance dependence, except where there is established clinical evidence, satisfactory to the Federal Air Surgeon, of recovery, including sustained total abstinence from the substance(s) for not less than the preceding 2 years. As used in this section-- ---
- (i) "Substance" includes: Alcohol; other sedatives and hypnotics; anxiolytics; opioids; central nervous system stimulants such as cocaine, amphetamines, and similarly acting sympathomimetics; hallucinogens; phencyclidine or similarly acting arylcyclohexylamines; cannabis; inhalants; and other psychoactive drugs and chemicals; and
- (ii) "Substance dependence" means a condition in which a person is dependent on a substance, other than tobacco or ordinary xanthine-containing (e.g., caffeine) beverages, as evidenced by--
 - (A) Increased tolerance;
 - (B) Manifestation of withdrawal symptoms;
 - (C) Impaired control of use; or
- (D) Continued use despite damage to physical health or impairment of social, personal, or occupational functioning.
 - (b) No substance abuse within the preceding 2 years defined as:
- (1) Use of a substance in a situation in which that use was physically hazardous, if there has been at any other time an instance of the use of a substance also in a situation in which that use was physically hazardous;
- (2) A verified positive drug test result acquired under an antidrug program or internal program of the U.S. Department of Transportation or any other Administration within the U.S. Department of Transportation; or
- (3) Misuse of a substance that the Federal Air Surgeon, based on case history and appropriate, qualified medical judgment relating to the substance involved, finds--
- (i) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (ii) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.
- (c) No other personality disorder, neurosis, or other mental condition that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds--
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held;

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

67.209 Neurologic.

Neurologic standards for a second-class airman medical certificate are:

- (a) No established medical history or clinical diagnosis of any of the following:
 - (1) Epilepsy;
- (2) A disturbance of consciousness without satisfactory medical explanation of the cause; or
- (3) A transient loss of control of nervous system function(s) without satisfactory medical explanation of the cause;
- (b) No other seizure disorder, disturbance of consciousness, or neurologic condition that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds--
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

67.211 Cardiovascular.

Cardiovascular standards for a second-class medical certificate are no established medical history or clinical diagnosis of any of the following:

- (a) Myocardial infarction;
- (b) Angina pectoris;
- (c) Coronary heart disease that has required treatment or, if untreated, that has been symptomatic or clinically significant;
 - (d) Cardiac valve replacement;
 - (e) Permanent cardiac pacemaker implantation; or
 - (f) Heart replacement.

67.213 General medical condition.

The general medical standards for a second-class airman medical certificate are:

- (a) No established medical history or clinical diagnosis of diabetes mellitus that requires insulin or any other hypoglycemic drug for control.
- (b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds--
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

- (c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds--
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.
- Sec. 67.215 Discretionary issuance.

A person who does not meet the provisions of Secs. 67.203 through 67.213 may apply for the discretionary issuance of a certificate under Sec. 67.401.

Subpart D--Third-Class Airman Medical Certificate

Sec. 67.301 Eligibility.

To be eligible for a third-class airman medical certificate, or to remain eligible for a third-class airman medical certificate, a person must meet the requirements of this subpart.

Sec. 67.303 Eye.

Eye standards for a third-class airman medical certificate are:

- (a) Distant visual acuity of 20/40 or better in each eye separately, with or without corrective lenses. If corrective lenses (spectacles or contact lenses) are necessary for 20/40 vision, the person may be eligible only on the condition that corrective lenses are worn while exercising the privileges of an airman certificate.
- (b) Near vision of 20/40 or better, Snellen equivalent, at 16 inches in each eye separately, with or without corrective lenses.
- $\mbox{(c)}\mbox{ Ability to perceive those colors necessary for the safe performance of airman duties.$
- (d) No acute or chronic pathological condition of either eye or adnexa that interferes with the proper function of an eye, that may reasonably be expected to progress to that degree, or that may reasonably be expected to be aggravated by flying.

Sec. 67.305 Ear, nose, throat, and equilibrium.

Ear, nose, throat, and equilibrium standards for a third-class airman medical certificate are:

- (a) The person shall demonstrate acceptable hearing by at least one of the following tests:
- (1) Demonstrate an ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 6 feet from the examiner, with the back turned to the examiner.
- (2) Demonstrate an acceptable understanding of speech as determined by audiometric speech discrimination testing to a score of at least 70 percent obtained in one ear or in a sound field environment.
- (3) Provide acceptable results of pure tone audiometric testing of unaided hearing acuity according to the following table of worst acceptable thresholds, using the calibration standards of the American

- 500 1000 2000

3000

Frequency (Hz)

Better ear (Db)-...

Poorer ear (Db)-...

35 30 30
40

Poorer ear (Db)-...

35 50 50

- (b) No disease or condition of the middle or internal ear, nose, oral cavity, pharynx, or larynx that--
- (1) Interferes with, or is aggravated by, flying or may reasonably be expected to do so; or
 - (2) Interferes with clear and effective speech communication.
- (c) No disease or condition manifested by, or that may reasonably be expected to be manifested by, vertigo or a disturbance of equilibrium.

Sec. 67.307 Mental.

Mental standards for a third-class airman medical certificate are:

- (a) No established medical history or clinical diagnosis of any of the following:
- (1) A personality disorder that is severe enough to have repeatedly manifested itself by overt acts.
- (2) A psychosis. As used in this section, "psychosis" refers to a mental disorder in which--
- (i) The individual has manifested delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of this condition; or
- (ii) The individual may reasonably be expected to manifest delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of this condition.
 - (3) A bipolar disorder.
- (4) Substance dependence, except where there is established clinical evidence, satisfactory to the Federal Air Surgeon, of recovery, including sustained total abstinence from the substance(s) for not less than the preceding 2 years. As used in this section---
- (i) "Substance" includes: alcohol; other sedatives and hypnotics; anxiolytics; opioids; central nervous system stimulants such as cocaine, amphetamines, and similarly acting sympathomimetics; hallucinogens; phencyclidine or similarly acting arylcyclohexylamines; cannabis; inhalants; and other psychoactive drugs and chemicals; and
- (ii) "Substance dependence" means a condition in which a person is dependent on a substance, other than tobacco or ordinary xanthine-containing (e.g., caffeine) beverages, as evidenced by--
 - (A) Increased tolerance;
 - (B) Manifestation of withdrawal symptoms;
 - (C) Impaired control of use; or
 - (D) Continued use despite damage to physical health or impairment

of social, personal, or occupational functioning.

- (b) No substance abuse within the preceding 2 years defined as:
- (1) Use of a substance in a situation in which that use was physically hazardous, if there has been at any other time an instance of the use of a substance also in a situation in which that use was physically hazardous;
- (2) A verified positive drug test result conducted under an antidrug rule or internal program of the U.S. Department of Transportation or any other Administration within the U.S. Department of Transportation; or
- (3) Misuse of a substance that the Federal Air Surgeon, based on case history and appropriate, qualified medical judgment relating to the substance involved, finds--
- (i) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held;
- (ii) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.
- (c) No other personality disorder, neurosis, or other mental condition that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds--
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

Sec. 67.309 Neurologic.

Neurologic standards for a third-class airman medical certificate

- (a) No established medical history or clinical diagnosis of any of the following:
 - (1) Epilepsy;
- (2) A disturbance of consciousness without satisfactory medical explanation of the cause; or
- (3) A transient loss of control of nervous system function(s) without satisfactory medical explanation of the cause.
- (b) No other seizure disorder, disturbance of consciousness, or neurologic condition that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds--
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

Sec. 67.311 Cardiovascular.

Cardiovascular standards for a third-class airman medical certificate are no established medical history or clinical diagnosis of any of the following:

- (a) Myocardial infarction;
- (b) Angina pectoris;
- (c) Coronary heart disease that has required treatment or, if untreated, that has been symptomatic or clinically significant;
 - (d) Cardiac valve replacement;
 - (e) Permanent cardiac pacemaker implantation; or
 - (f) Heart replacement.

Sec. 67.313 General medical condition.

The general medical standards for a third-class airman medical certificate are:

- (a) No established medical history or clinical diagnosis of diabetes mellitus that requires insulin or any other hypoglycemic drug for control.
- (b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds--
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.
- (c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds--
- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

Sec. 67.315 Discretionary issuance.

A person who does not meet the provisions of Secs. 67.303 through 67.313 may apply for the discretionary issuance of a certificate under Sec. 67.401.

Subpart E--Certification Procedures

Sec. 67.401 Special issuance of medical certificates.

(a) At the discretion of the Federal Air Surgeon, an Authorization for Special Issuance of a Medical Certificate (Authorization), valid for a specified period, may be granted to a person who does not meet the provisions of subparts B, C, or D of this part if the person shows to the satisfaction of the Federal Air Surgeon that the duties authorized by the class of medical certificate applied for can be performed without endangering public safety during the period in which the Authorization would be in force. The Federal Air Surgeon may authorize a special medical flight test, practical test, or medical evaluation for this purpose. A medical certificate of the appropriate class may be issued to a person who does not meet the provisions of subparts B, C, or D of this part if that person possesses a valid

Authorization and is otherwise eligible. An airman medical certificate issued in accordance with this section shall expire no later than the end of the validity period or upon the withdrawal of the Authorization upon which it is based. At the end of its specified validity period, for grant of a new Authorization, the person must again show to the satisfaction of the Federal Air Surgeon that the duties authorized by the class of medical certificate applied for can be performed without endangering public safety during the period in which the Authorization would be in force.

- (b) At the discretion of the Federal Air Surgeon, a Statement of Demonstrated Ability (SODA) may be granted, instead of an Authorization, to a person whose disqualifying condition is static or nonprogressive and who has been found capable of performing airman duties without endangering public safety. A SODA does not expire and authorizes a designated aviation medical examiner to issue a medical certificate of a specified class if the examiner finds that the condition described on its face has not adversely changed.
- (c) In granting an Authorization or SODA, the Federal Air Surgeon may consider the person's operational experience and any medical facts that may affect the ability of the person to perform airman duties including--
- (1) The combined effect on the person of failure to meet more than one requirement of this part; and
- (2) The prognosis derived from professional consideration of all available information regarding the person.
- (d) In granting an Authorization or SODA under this section, the Federal Air Surgeon specifies the class of medical certificate authorized to be issued and may do any or all of the following:
 - (1) Limit the duration of an Authorization;
- (2) Condition the granting of a new Authorization on the results of subsequent medical tests, examinations, or evaluations;
- (3) State on the Authorization or SODA, and any medical certificate based upon it, any operational limitation needed for safety; or
- (4) Condition the continued effect of an Authorization or SODA, and any second- or third-class medical certificate based upon it, on compliance with a statement of functional limitations issued to the person in coordination with the Director of Flight Standards or the Director's designee.
- (e) In determining whether an Authorization or SODA should be granted to an applicant for a third-class medical certificate, the Federal Air Surgeon considers the freedom of an airman, exercising the privileges of a private pilot certificate, to accept reasonable risks to his or her person and property that are not acceptable in the exercise of commercial or airline transport pilot privileges, and, at the same time, considers the need to protect the safety of persons and property in other aircraft and on the ground.
- (f) An Authorization or SODA granted under the provisions of this section to a person who does not meet the applicable provisions of subparts B, C, or D of this part may be withdrawn, at the discretion of the Federal Air Surgeon, at any time if--
 - (1) There is adverse change in the holder's medical condition;
- (2) The holder fails to comply with a statement of functional limitations or operational limitations issued as a condition of certification under this section;
- (3) Public safety would be endangered by the holder's exercise of airman privileges;
 - (4) The holder fails to provide medical information reasonably

needed by the Federal Air Surgeon for certification under this section; or

- (5) The holder makes or causes to be made a statement or entry that is the basis for withdrawal of an Authorization or SODA under Sec. 67.403.
- (g) A person who has been granted an Authorization or SODA under this section based on a special medical flight or practical test need not take the test again during later physical examinations unless the Federal Air Surgeon determines or has reason to believe that the physical deficiency has or may have degraded to a degree to require another special medical flight test or practical test.
- (h) The authority of the Federal Air Surgeon under this section is also exercised by the Manager, Aeromedical Certification Division, and each Regional Flight Surgeon.
- (i) If an Authorization or SODA is withdrawn under paragraph (f) of this section the following procedures apply:
- (1) The holder of the Authorization or SODA will be served a letter of withdrawal, stating the reason for the action;
- (2) By not later than 60 days after the service of the letter of withdrawal, the holder of the Authorization or SODA may request, in writing, that the Federal Air Surgeon provide for review of the decision to withdraw. The request for review may be accompanied by supporting medical evidence;
- (3) Within 60 days of receipt of a request for review, a written final decision either affirming or reversing the decision to withdraw will be issued; and
- (4) A medical certificate rendered invalid pursuant to a withdrawal, in accordance with paragraph (a) of this section, shall be surrendered to the Administrator upon request.
- (j) No grant of a special issuance made prior to September 16, 1996, may be used to obtain a medical certificate after the earlier of the following dates:
 - (1) September 16, 1997; or
- (2) The date on which the holder of such special issuance is required to provide additional information to the FAA as a condition for continued medical certification.
- Sec. 67.403 Applications, certificates, logbooks, reports, and records: Falsification, reproduction, or alteration; incorrect statements.
 - (a) No person may make or cause to be made--
- (1) A fraudulent or intentionally false statement on any application for a medical certificate or on a request for any Authorization for Special Issuance of a Medical Certificate (Authorization) or Statement of Demonstrated Ability (SODA) under this part;
- (2) A fraudulent or intentionally false entry in any logbook, record, or report that is kept, made, or used, to show compliance with any requirement for any medical certificate or for any Authorization or SODA under this part;
- (3) A reproduction, for fraudulent purposes, of any medical certificate under this part; or
 - (4) An alteration of any medical certificate under this part.
- (b) The commission by any person of an act prohibited under paragraph (a) of this section is a basis for--
 - (1) Suspending or revoking all airman, ground instructor, and

medical certificates and ratings held by that person;

- (2) Withdrawing all Authorizations or SODA's held by that person; and ${\bf r}$
- (3) Denying all applications for medical certification and requests for Authorizations or SODA's.
- (c) The following may serve as a basis for suspending or revoking a medical certificate; withdrawing an Authorization or SODA; or denying an application for a medical certificate or request for an authorization or SODA:
- (1) An incorrect statement, upon which the FAA relied, made in support of an application for a medical certificate or request for an Authorization or SODA.-
- (2) An incorrect entry, upon which the FAA relied, made in any logbook, record, or report that is kept, made, or used to show compliance with any requirement for a medical certificate or an Authorization or SODA.

Sec. 67.405 Medical examinations: Who may give. -

- (a) First-class. Any aviation medical examiner who is specifically designated for the purpose may give the examination for the first-class medical certificate. Any interested person may obtain a list of these aviation medical examiners, in any area, from the FAA Regional Flight Surgeon of the region in which the area is located. -
- (b) Second- and third-class. Any aviation medical examiner may give the examination for the second- or third-class medical certificate. Any interested person may obtain a list of aviation medical examiners, in any area, from the FAA Regional Flight Surgeon of the region in which the area is located.

Sec. 67.407 Delegation of authority. -

- (a) The authority of the Administrator under 49 U.S.C. 44703 to issue or deny medical certificates is delegated to the Federal Air Surgeon to the extent necessary to-- -
- (1) Examine applicants for and holders of medical certificates to determine whether they meet applicable medical standards; and -
- (2) Issue, renew, and deny medical certificates, and issue, renew, deny, and withdraw Authorizations for Special Issuance of a Medical Certificate and Statements of Demonstrated Ability to a person based upon meeting or failing to meet applicable medical standards. -
- (b) Subject to limitations in this chapter, the delegated functions of the Federal Air Surgeon to examine applicants for and holders of medical certificates for compliance with applicable medical standards and to issue, renew, and deny medical certificates are also delegated to aviation medical examiners and to authorized representatives of the Federal Air Surgeon within the FAA. -
- (c) The authority of the Administrator under 49 U.S.C. 44702, to reconsider the action of an aviation medical examiner is delegated to the Federal Air Surgeon; the Manager, Aeromedical Certification Division; and each Regional Flight Surgeon. Where the person does not meet the standards of Secs. 67.107(b)(3) and (c), 67.109(b), 67.113(b) and (c), 67.207(b)(3) and (c), 67.209(b), 67.213(b) and (c), 67.307(b)(3) and (c), 67.309(b), or 67.313(b) and (c), any action taken under this paragraph other than by the Federal Air Surgeon is subject to reconsideration by the Federal Air Surgeon. A certificate issued by an

aviation medical examiner is considered to be affirmed as issued unless an FAA official named in this paragraph (authorized official) reverses that issuance within 60 days after the date of issuance. However, if within 60 days after the date of issuance an authorized official requests the certificate holder to submit additional medical information, an authorized official may reverse the issuance within 60 days after receipt of the requested information. -

(d) The authority of the Administrator under 49 U.S.C. 44709 to reexamine any civil airman to the extent necessary to determine an airman's qualification to continue to hold an airman medical certificate, is delegated to the Federal Air Surgeon and his or her authorized representatives within the FAA.

Sec. 67.409 Denial of medical certificate. -

- (a) Any person who is denied a medical certificate by an aviation medical examiner may, within 30 days after the date of the denial, apply in writing and in duplicate to the Federal Air Surgeon, Attention: Manager, Aeromedical Certification Division, AAM-300, Federal Aviation Administration, P.O. Box 26080, Oklahoma City, Oklahoma 73126, for reconsideration of that denial. If the person does not ask for reconsideration during the 30-day period after the date of the denial, he or she is considered to have withdrawn the application for a medical certificate. -
 - (b) The denial of a medical certificate---
- (1) By an aviation medical examiner is not a denial by the Administrator under 49 U.S.C. 44703.-
- (2) By the Federal Air Surgeon is considered to be a denial by the Administrator under 49 U.S.C. 44703. -
- (3) By the Manager, Aeromedical Certification Division, or a Regional Flight Surgeon is considered to be a denial by the Administrator under 49 U.S.C. 44703 except where the person does not meet the standards of Secs. 67.107(b)(3) and (c), 67.109(b), or 67.113(b) and (c); 67.207(b)(3) and (c), 67.209(b), or 67.213(b) and (c); or 67.307(b)(3) and (c), 67.309(b), or 67.313(b) and (c).
- (c) Any action taken under Sec. 67.407(c) that wholly or partly reverses the issue of a medical certificate by an aviation medical examiner is the denial of a medical certificate under paragraph (b) of this section. -
- (d) If the issue of a medical certificate is wholly or partly reversed by the Federal Air Surgeon; the Manager, Aeromedical Certification Division; or a Regional Flight Surgeon, the person holding that certificate shall surrender it, upon request of the FAA.
- Sec. 67.411 Medical certificates by flight surgeons of Armed Forces. -
- (a) The FAA has designated flight surgeons of the Armed Forces on specified military posts, stations, and facilities, as aviation medical examiners. -
- (b) An aviation medical examiner described in paragraph (a) of this section may give physical examinations for the FAA medical certificates to persons who are on active duty or who are, under Department of Defense medical programs, eligible for FAA medical certification as civil airmen. In addition, such an examiner may issue or deny an appropriate FAA medical certificate in accordance with the regulations of this chapter and the policies of the FAA. -
 - (c) Any interested person may obtain a list of the military posts,

stations, and facilities at which a flight surgeon has been designated as an aviation medical examiner from the Surgeon General of the Armed Force concerned or from the Manager, Aeromedical Education Division, AAM-400, Federal Aviation Administration, P.O. Box 26082, Oklahoma City, Oklahoma 73125.

Sec. 67.413 Medical records. -

- (a) Whenever the Administrator finds that additional medical information or history is necessary to determine whether an applicant for or the holder of a medical certificate meets the medical standards for it, the Administrator requests that person to furnish that information or to authorize any clinic, hospital, physician, or other person to release to the Administrator all available information or records concerning that history. If the applicant or holder fails to provide the requested medical information or history or to authorize the release so requested, the Administrator may suspend, modify, or revoke all medical certificates the airman holds or may, in the case of an applicant, deny the application for an airman medical certificate. -
- (b) If an airman medical certificate is suspended or modified under paragraph (a) of this section, that suspension or modification remains in effect until the requested information, history, or authorization is provided to the FAA and until the Federal Air Surgeon determines whether the person meets the medical standards under this part.

Sec. 67.415 Return of medical certificate after suspension or revocation-

The holder of any medical certificate issued under this part that is suspended or revoked shall, upon the Administrator's request, return it to the Administrator..

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Please access the Universal Resource Locators (URL) to obtain a copy of the following Appendices. Typing in your browser, or clicking on these URL's will take you to the corresponding web site.

APPENDIX B – Agency Forms

http://forms.faa.gov/

APPENDIX C – List of the Regional Flight Surgeons, including names, addresses, telephone/facsimile numbers, and e:mail addresses.

http://www.cami.jccbi.gov/aam-300/rfs.html

APPENDIX D – Aviation Medical Examiner System, FAA Order 8520.2E

http://www.faa.gov/avr/aam/order8520-2e.htm

APPENDIX E – List of FAA Flight Service District Offices

http://faa.gov/avr/afs/fsdo/index.cfm